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# MASSACHUSETTS PLOUGHMAN

DEVOTED TO AGRICULTURE, HORTICULTURE, THE FARM, THE GARDEN, THE FOREST, SMALL ANIMALS, AND THE NATURAL HISTORY OF THE STATE

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**Outlook for Eastern Beef.**  
The time is at hand when the East may again compete with the West in beef production, if it cares to do so. Whether such competition will take place depends largely on the future of the price of beef as compared with the returns for dairy products. At present, wherever milk and milk products can be handled and shipped to advantage, they are considered more profitable even than beef at high prices.  
In remote sections of the East where no railroads are near and no convenient creameries, cheese factories or condenseries, and where the help needed to operate a dairy farm is hard to get, the subject of beef production is attracting most attention. There are such districts in nearly every one of the North Atlantic States. Beef production requires less labor than dairying, and the cattle can be marketed from remote towns without special difficulty.  
It is possible, almost probable, in fact, that the advantage of dairying, in relative profit, will become less year by year. In other words, the outlook is for a more rapid gain in the conditions favorable for Eastern beef production than for Eastern dairying.

Western dairy interests are growing with extreme rapidity. Western butter now sells at practically same prices as best Eastern. Immense quantities are placed in cold storage, to be sold six months later for nearly the prices of best fresh-made creamery goods. This means that Kansas and the Dakotas may now compete with the East the year through, and with about the same advantages in dairy production that they have had in grain raising, namely, very fertile, easily worked soil, operated on a large scale by machinery. The advent of cold storage has made time and distance no great obstacle. In fact, the Western product added to the disreputable competition from oleo and renovated butter has already begun to crowd the Eastern producer rather closely during seasons when the supply of dairy products has exceeded the demand. As fast as population increases the demand will also grow, but there is more reason to believe that the Western dairy sections will continue their extremely rapid growth for a long time to come.

The beef situation, on the other hand, is likely to improve rapidly. The West has reached about the limit of cheap beef production. According to good authorities, no great increase in the output of the ranges may be expected. In fact, their area is continually being reduced by sales of land for farming purposes. According to the internal commerce reports, the receipts of cattle at the five leading stock markets, Chicago, Kansas City, Omaha, St. Louis and St. Joseph, during the past year, showed an increase of only a few thousand head, whereas the consumption of beef would naturally call for an immense increase. The receipts last year were 7,710,359 head, as compared with 7,243,469 in 1901 and 6,902,735 in 1900. On the other hand, there was a pronounced falling off in the number of hogs received. The total receipts of swine in 1902 at the five principal markets named were 15,614,129 head, as compared with the much higher total of 17,574,713 in 1901 and 17,239,021 in 1900. It is also significant that the contribution of the live-stock at these five principal markets in 1902 aggregated only 583,245 cars, as compared with 622,352 in 1901 and 582,257 cars in 1900. It thus appears that the high tide of live-stock traffic was reached in 1901, and that the past year has returned more nearly to the level of activity indicated by the figures of 1900.

While the demand for beef must increase very greatly in the near future, the West cannot greatly increase the output except by ordinary farm methods, including silo, pasturage and grain feeding. The Eastern farmer, with his cheap lands and natural pastures, will have a fair chance at the higher level of prices which these conditions must bring about. The Northeast is naturally a stock-raising section, with its large areas of rough land and unsuited for cultivation by modern methods, its sheltered valleys, good water supply and its good farms to be had for less than cost of buildings.

Eastern beef at present is mostly a by-product of the dairy farm and made from discarded milk cows. Heavy beef from pure-bred beef stock can be produced fully equal in quality to that of any other section. It is certainly better for the consumer than the meat of exhausted, feverish, starving animals shipped from distant points for the supply of Eastern markets.

Boston's record for fires shows that a lot of little losses is much better than one or two very big ones.

### Draining a Very Wet Piece.

Nearly every one of extended experience in the work of tile drainage is reminded of instances in which the attempt has been made to drain deep depressions where a sudden flow of water concentrates from the uplands adjoining, where it was eventually learned that the tile at such periods was unable to remove the heavy influx of water in time to entirely save the growing crop. Such a condition of affairs has existed on the writer's farm, and efforts have been made at different times in years past to render it in condition to insure a crop against damage by water, but with indifferent success. Tiles laid in ditches following the water courses of the field naturally converging at this depression, where all united in a single six-inch tile designed as the outlet, the water flowing into an open ditch forty rods distant was considered ample for all emergencies; an ideal job. But the continued rains and heavy down-pour of water that have occurred at times

considerable hammering to get this fact into the heads of Vermont farmers, but it got there, and the last legislature made it impossible for two or three men of the cattle commission to partially ruin the dairy interest of a whole State because they "suspected" tuberculosis existed.

Under the present law, if the cattle owner has reason to suppose his cattle are diseased, he may apply to the cattle commissioners for examination, etc. The initiatory is where it should be, with the owner of the stock. The cattle owner will be the most anxious party to keep his herd healthy, and will, in the majority of instances, promptly co-operate with the State.

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commission which prepared the food bills. He emphasized the importance to the producers and consumers of pure food legislation. He quoted from the testimony of a Chicago chemist and former city inspector concerning the varieties of adulterations of apples, liquors, candies and several varieties of foods, and then gave estimates by A. J. Wedderburn of Virginia, who was formerly special inspector of the Department of Agriculture and corresponding secretary of the pure-food and drug congress, as to the percentage of food and drugs that are adulterated. He placed the aggregate loss to consumers at \$1,170,000,000.

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Feed—	Per cent. protein.	Pounds protein in one ton.
Corn.....	10	100
Wheat bran.....	12	120
Oil meal (O. P.).....	20	200
Cottonseed meal.....	37	370
Digester tankage.....	60	600
Blood meal.....	87	870
Soluble blood flour.....	87	870

One of the by-product foods mentioned above is likely to become of great interest and importance to practical dairymen. We refer to soluble blood flour. This preparation has been tried and proved to be an excellent food to develop rapid growth in young calves feeding on skimmed milk. Different stations have found that blood meal absolutely cures and prevents scours, which causes so much trouble with skimmed milk fed calves.

Digester tankage is a food for hogs only. It is made from pure meat scraps thoroughly dried and carefully ground. Hogs eat it greedily, and, as noted before, make large

control in wet, warm seasons. The best that can be done is to burn affected portions of the tree and fruit as soon as noticed. Spraying with sulphate of iron—four to eight pounds to a gallon of water—is good; and the bordeaux mixture sprayed once before the buds open, once when the blossoms are falling, is fairly effective. The best plan is to spray before the buds open with iron sulphate, as the blossoms are falling with bordeaux, and every week or two thereafter, until the fruit begins to color, with ammoniacal carbonate of copper—carbonate (copper) one ounce, ammonia three-fourths quart, water nine gallons.

Shot hole, appearing in plum and cherry orchards, is evidenced by red or rosy specks on under surface of young leaves. The speck turns brown, white spots are developed, and in the case of plum leaves, the speck becomes a hole, the diameter of small shot. In nursery stock complete defoliation is probable, and with mature trees sufficient injury to the leaves to reduce the fruit yield. The disease is spread like brown rot. Fallen leaves must therefore be destroyed, and the bordeaux mixture resorted to early in the spring and again after the leaves expand.

Powdery mildew ordinarily affects young cherry and apple trees. It appears in white spots on the leaves; the fungus threads send little suckers down into the plants' cells and absorb the juices there. Black spores are formed later, and these, with their thick walls, live safely through the winter and germinate in the spring. The disease defoliates young trees and robs older ones of much nourishment. Burning the leaves in the spring is an effective preventive. Finely powdered sulphur dusted over the diseased parts of a tree kills the fungus; and potassium sulphide solution—one-half ounce to a gallon of water—is nearly as effective.

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To plum and cherry black knot is the most destructive of American diseases. Black knot is a fungous disease causing a swelling in the tissue of the previous season's growth. It frequently spreads over branches and trunk, and causes the death of the tree in less than two years. As the swelling increases the bark cracks open and a soft spongy tissue protrudes. This tissue is coated with olive green spores, which during the summer are carried to other trees. The spongy tissue becomes a wart-like knot in the late autumn; it cracks in many places, and in the cracks are developed white spores, which, after ripening through the winter, are distributed when warm weather comes. When a knotty growth encircles a branch, growth beyond is stopped, and the enlargement proceeds down the limb toward the trunk. Treatment: Cut off all infested limbs several inches below the knot and burn, use bordeaux for summer spores, and remove all infested wild plum and cherry trees in the vicinity.

### Modern Farm Comforts.

Who today wants to go back to the log cabin, with the wind whistling through every side, and the snow sitting between the shingles, when today the majority of farmers have good houses, or at least those that make for a great degree of comfort? I believe the majority of farmers today have learned to take the golden mean in regard to making their children rugged. Instead of having them sleep where the North wind could do its work in keeping them cold, today the bed chamber is made comfortable, if not by fire in the stove, by good protection on the walls of the houses.

Another blessing that the farmer and his wife have secured, and that is reading matter. In early times this luxury and necessity could not be secured; but today it has been secured through the rural people insisting upon it. Today you can hardly go into a home, especially in the home of an up-to-date farmer, unless you find not only farming papers, but general newspapers, magazines and books of many kinds. For who would say that these do not make for more good than to remain housed up, not knowing anything of the outside world? Some of our greatest literary men have come from the country, where they, through even scanty supply of books, received an inspiration which in after years has done to other generations much good.

A supply of good books in a home is a much better fortress than that of granite. The farmer's influence is felt in the community; a man that unites with nature in her various forms during a greater part of the time, is in a certain sense ready to mingle with his fellows.  
Albion, Me. A. M. HIKES.

### Helping Them Out.

Strange as it may seem, there are still a lot of farmers who do not take or read an agricultural paper. These farmers are certainly not getting the most out of life that they might. How can they be convinced of it?—F. H. Dow, New York.  
Tell them occasionally about some of the good points you find in the papers. It will do them good and show them something of what they are missing every week.



ENGLISH PRIZE JERSEY.

during the past two seasons has demonstrated the fact that other means must be adopted in order to remove the surface water out of that hole more expeditiously, as the liability of losing a crop occurs at time, unexpected, together with the cash outlay and the labor expended in doing the job. The problem was how can the overflow water be conducted at once into the six-inch tiles which was apparently large enough to perform the work required. The fact that water entering the joints of tiles after settling through the soil absorbed too much time had been fully illustrated.

In order to remedy this difficulty the following plan was recently adopted. At the lowest point in the depression or "pond hole" where the six-inch tile enters for the outlet, a "catch basin," consisting of a sewer pipe two feet in diameter and 25 feet long, is placed in the ground, the upper end just even with the surface of the ground. At its lower end an aperture is cut out of size to allow the entrance of the end of the six-inch tile designed for the outlet, also others for inlet to other smaller tiles. The upper end of the sewer pipe being about even with the surface of the surrounding soil, it is assumed that the surface water will flow in unobstructed, and the six-inch tile will do the rest. When the critical time arrives it will be watched with interest by Irving D. Cook, Genesee County, N. Y.

Since the above was written, the January thaw has suddenly sent down a flood of water in volume sufficient to thoroughly test the above system. For a time the overflow rushed over the edges of the sewer pipe, where it passed off through the six-inch tile all right. Before the day closed the flow of water increased faster than it could be disposed of, and on the following morning there appeared nearly or quite the amount of surface water as formerly, but twenty-four hours later, to my unbounded satisfaction, the water had entirely disappeared, and one could walk dry shod over the entire portion so recently submerged, thus apparently insuring a favorable harvest of the winter wheat now occupying the ground.  
I. D. C.

### Tuberculosis in Vermont.

Allow me to congratulate you in behalf of New England farmers, and especially of the farmers of Vermont, for your recent article headed, "Time for Moderation," in which you treat the subject of tuberculosis and its methods of handling. You will say, "the public has passed beyond the stampeped period, and extreme measures will not be favored in this connection." It took con-

siderable hammering to get this fact into the heads of Vermont farmers, but it got there, and the last legislature made it impossible for two or three men of the cattle commission to partially ruin the dairy interest of a whole State because they "suspected" tuberculosis existed. Under the present law, if the cattle owner has reason to suppose his cattle are diseased, he may apply to the cattle commissioners for examination, etc. The initiatory is where it should be, with the owner of the stock. The cattle owner will be the most anxious party to keep his herd healthy, and will, in the majority of instances, promptly co-operate with the State.

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Meat meal is a product of higher grade meat scraps, dried and ground, and is meeting with a large demand from poultrymen who wish cheap winter eggs. Every practical poultryman knows that no food is a better egg stimulant than meat scraps, fresh from the butcher shop. Such scraps cannot be stored except in refrigerators during hot weather, so are not available to many poultrymen. Many of our best breeders of pure-bred swine are thoroughly alive to the fact that if they are going to develop proper bone in their breeding stock they must make a radical change in the methods of breeding, feeding and treatment. It has been a practice in Great Britain and Germany for many years to feed swine, especially early in life, liberal rations of ground bone. Ground bone contains a large amount of digestible protein, from twenty to twenty-five per cent., and is rich in phosphates, containing from fifty to fifty-five per cent. It will be readily seen that this material affords the swine breeder valuable help in overcoming the serious defect in his breed stock. In conclusion, we would say that we believe that a great future is in store for the use of animal foods. We believe that it is a matter of only a few years until every available material from our great packing houses will be converted into palatable and nutritive foods for the growth and maintenance of farm live stock.

### Common Diseases of Stone Fruits.

One of the strong scientific papers of a recent convention of Western fruit growers was devoted to the "Diseases of Peach, Plum and Cherry Trees and Their Fruits," by T. J. Pritchard. One of the diseases most disastrous in the United States is brown rot, caused by a little fungus which may attack any portion of the host. When it attacks the fruit its threads grow in a reddish or yellow spot, which presently becomes a gray rot through the development of spores. The fruit later becomes brown, rots, shrivels up, and unless removed hangs on the tree all winter. In the spring the fungus threads in the fruit, reviving, produce more spores, which infect blossoms, young leaves and twigs. A single mummified fruit contains enough spores frequently to infect a large crop. These spores may or may not be widely distributed. Brown rot attacking the blossoms, they turn brown and rot and start decay whenever they touch a neighboring leaf or young fruit. The disease is practically impossible of

These foods are cheap, clean and highly concentrated. It is not necessary to handle a large bulk in order to get the food constituents required. We do not believe in tablet ration, but recommend a wise and carefully planned system of feeding by which an animal will get plenty of bulk food and at the same time plenty of nutritive material. The following table will give a better idea of the relation existing between some of these feeds and the ordinary feeds of the farm. These analyses are authentic:

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## Dairy Products and Eggs.

Best fresh creamery butter has been in light supply on account of the past unfavorable weather, and prices have advanced one or two cents in most of the leading markets of the country. Some dealers say that the demand is also better. The improvement does not apply to lower grades. In fact, for these the market is in a very bad condition, and quotations tend strongly downward. The only apparent relief for such goods is in the export trade. But exporters are reluctant to buy at any price, owing to the glutted condition of foreign markets.

It is evident that enormous quantities of process and factory butter have been placed on the market. The output of these grades is increasing in the West and North at alarming rate. Holders are, however, unable to find a market at present, and are trying to unload at prices below cost and storage. Choice creamery butter, as stated before, is in good demand now, but the return of mild weather is expected to cause increase of receipts and consequent lower prices.

To quote opinions of a few Boston dealers: C. Smith & Adams: "The advance in price of best grades follows the advance in New York and is also due to light supplies here. Medium and low grades sell with difficulty, and a large quantity must be cleared out by exportation before the market will find relief." M. A. Parker: "Vermont and Northern dairy and creamery is selling well at firm quotations. Low grades are plenty and cheap." J. R. Ellis & Co.: "Prime storage butter quotes 22 to 24 cents, with increased demand. Grocers have been getting out of stock which they stored early in the season and are coming on the general market, thus improving the demand." G. A. Cochran: "Demand has improved for the finer grades, but for export grades the situation is not encouraging. Foreign agents say 'Don't ship for the present.' The market over there is loaded down with stock from local storage. Export butter can be bought in New York for 10 to 11 cents by the carload, but few care to ship any abroad. Much of the stock in storage will need to be carried over, according to present outlook. This means added cost of 2 or 3 cents a pound, and probably serious loss to holders. Long kept storage butter is very 'tender,' and will not keep any length of time after taken from storage. Most of the present trade is in fresh-made butter."

The New York market has maintained a firm tone for fresh creamery, and supplies were taken up as fast as received at full quotations. The light supply of fancy grades has forced some buyers to take firsts instead, thus improving the market for these grades also, but lower grades have not improved. Storage butter is selling well at 25 cents. Under grades, including renovated, are hard to sell at any price, the export demand being very dull.

The cheese markets everywhere maintain their extremely firm position, and no important changes are reported. Dealers are buying in small lots for present needs, hoping for lower prices later. Exporters have been picking up skins and part skins in fair quantities, and at prices which show willingness of holders to realize for cash. No concessions are reported on the higher grades. Receipts at New York the first half of the week, 1908 boxes.

The egg market continues to decline, although the cold spell made a temporary improvement. Holders are inclined to accept offers, fearing a further decline, and quotations are therefore a little weak. The storage speculators have lost money the past winter, except for sales made in the early part of the season. Eggs and storage stand them at 19 to 20 cents, but the best they can get now is about 13 cents. They must sell at some price, since eggs cannot be carried over.

Receipts at New York for the week 37,250 packages of butter, 10,725 packages cheese and 77,200 cases of eggs, against 28,670 packages of butter, 9721 packages of cheese, 21,172 cases of eggs corresponding week last year. At Boston for the week 647,327 pounds butter, 1275 boxes cheese, besides 120 boxes for export, 23,881 cases of eggs, compared with 582,967 pounds butter, 841 packages cheese, besides 8864 boxes for export, 5711 cases eggs same week last year.

## Provision Market Uneven.

The reason why hogs and hog products should be firm at rather high prices while beef is easy and declining, is a puzzle to the average consumer. With the abundance of corn and much of it low grade and fit only for feeding purposes, it was naturally supposed that the situation would quickly affect the hog market and lead to lower pork prices. It is reported from Chicago that the great pork packers are holding up the market for speculative purposes, and this may be sufficient explanation. In view of the fact that the hogs arriving for the past month or two have often averaged considerably under the usual number, it would seem that the growers might have fed the hogs some of the low-grade corn and so been in a position to ship heavier and better hogs at the present time. At leading Western points the total pack the last week was 455,000, compared with 415,000 the preceding week, and 435,000 two weeks ago. For corresponding time last year the number was 610,000, and two years ago 625,000. From Nov. 1 to Feb. 1, 1902, the average was 588,000 a year ago—decrease of 1,800,000. Nothing much can be deduced from these figures to justify higher prices.

Boston dealers and packers have had some trouble in getting shipments of live hogs through from the West. Some of the cattle and hogs which arrived were in bad condition, many deaths having occurred from starvation and neglect during the delay. The total kill of hogs was 19,500, which is less than half the number slaughtered on same preceding week, and compares with 27,000 same week a year ago. The export demand was beyond the average, leaving a rather small supply for local uses.

In the beef market it takes a choice heavy creature to bring 75 cents or 72 cents, and the bulk of sales have been made at 7 cents. Light cow beef, as usual, sells from 1 cent to 15 cents below standard quotations as above. Beef arrivals at Boston for the week were 230 cars, of which 83 were for export. This is about the same as for the week preceding, but is considerably above the receipts at this season last year.

Choice lambs are in good demand at slightly advanced quotations, the supply being moderate. Mutton and veal are steady at quotations. Venison is now supplied from cold storage, and is out of market for the general shipper. Bald ducks sell at \$1.75 to \$2 per pair, redhead ducks \$2.50, widehead \$1, teal \$1.10. Philadelphia squabs are firm at \$4 to \$4.50 per dozen, with natives at \$3.50 to \$3.75, quail \$4.25 to \$4.50 per dozen, plover \$5 to \$6 per dozen.

Official meat inspectors have been making trouble recently for dealers who attempt to

handle bob veal. On the occasion of the seizure of certain lots disputes arose at the dividing line between bob and prime veal. Commissioner F. J. H. Kraake submits the following decision by Dr. H. D. Gill, department veterinarian: "A distinction is made between prime and bob veal. The definition of prime is 'of excellent quality,' therefore, a two days bob calf may be fat and well nourished, and could be classified as a prime bob. On the other hand, by prime I understand to mean that the meat is of fine quality. I shall be obliged to take exception because the meat of calves under four weeks of age is not made up of mature, normal tissue, but is lacking in some elements and therefore unfit for human consumption; that a two days old carcass of veal, weighing seventy-five pounds should be considered prime by commission men, does not alter the fact that it is a bob and unfit for food. The dealers in veal at the market make a distinction and give an argument that so-called prime carcasses are fit for food no matter what the age is. They draw the line of distinction between lean and well-nourished carcasses of veal. It is very seldom an inspector seizes a calf which is over two weeks of age. The local health department inspector seizes calves under forty-five pounds no matter what the age; the weight is not an absolutely positive indication. I have seen carcasses of veal over four weeks of age that weighed less than forty-five pounds, and I have seen some only one day old weigh over one hundred pounds. The weight of calves seized ran from forty-two to sixty-five pounds, some one week of age, but ninety per cent. of them less than seven days old."

## Milk Supply of New York.

The bulk of milk shipments from within the State come from ten or twelve counties located in southern and central New York and the Hudson-river district. According to a statement prepared for the New York Times, there are about 125,000 cows concerned in this portion of the supply. The last United States census report fixes the average value of cows at \$31.60 each. Calculating in round numbers, this will show an investment of \$3,950,000 in the 125,000 cows owned in the eleven New York counties supplying the city with milk.

Not less than 1,000,000 acres of farm land are required to support these cows, and by no means large average value of that land will be \$30 an acre. Thus the farmers have \$30,000,000 invested in it. At least 30,000 horses are needed to haul the milk of these 125,000 cows to the shipping stations, hay from the meadows, and feed from the feed stores—particularly feed from the feed stores, for your average dairy farmer, certainly in Orange County, buys more feed than he raises. As it would be a difficult matter to find a dairy farmer who would admit that he had a horse on his farm that did not stand him in at least \$100, the investment of the milk producers in horseflesh in these eleven counties is \$3,000,000.

Wagons, milk cans, machinery and the various odds and ends necessary to the milk-producing business are estimated as representing a cost of \$2,000,000. There are not less than 13,000 separate farms on which New York's milk in those counties is produced, and a low average estimate of the value of the farmhouses, barns and outbuildings necessary for dairy purposes on each of these farms would be \$1000, footing up a total of \$13,000,000.

The total capital, therefore, invested by the dairy farmers of those counties in the plant necessary for the providing of milk for New York is \$31,000,000—more than the capital of every bank, manufacturing establishment and store in the eleven counties combined.

Besides all that, an army of farm help numbering not less than 20,000 persons is employed at a cost of \$2,000,000 a year, and there is the expense of feed of various kinds for the stock.

It is but natural for a New Yorker, or for even the dairy farmer of the counties referred to, when the dairy business of the State is mentioned, to associate it in his mind simply with the keeping up of the milk supply for the city. As a matter of fact, enormous as that branch of the business is, it is so small a part of the dairy industry of the State that it is dropped out entirely. The business at large would scarcely miss it.

There are sixty-one counties in this State, so, leaving out the eleven counties referred to, the cows of the remaining fifty crop the meadows with never a care whether New York has a district of dairy farmers, or the business of supplying New York with milk, the farmers of this State have an investment of \$43,000,000 in cows, and a corresponding amount in dairy farms and fixtures—an amount not less than \$150,000,000. New York State has 1,500,000 cows—more than New Jersey and Pennsylvania combined, and more than any other one State in the Union; Iowa being second, Illinois third and Wisconsin fourth.

## Hay Prices Maintained.

The severe weather has added its effect to the freight embargo, and at some points the arrivals of hay have been even less than previously reported. The demand is reported good in all the leading markets for the best qualities of hay, and shipments of this grade demand good prices. The bulk of the receipts have been of the poorer grades, and where the supply is large, holders have been inclined to cut prices a little to force the sales. Milder weather is likely to increase the shipments, and the stock on hand at the end of this week is likely to be larger than for some time, but at the time of writing the prices are fairly well maintained.

The situation at New York is reported practically unchanged, the best grades being firm and the medium and low grades in good supply. Rice straw is rather scarce, and the demand exceeds the supply. In Jersey City the high prices quoted during the recent week are still maintained, and there is a shortage of the best grades of hay. This city is largely supplied by the New York Central & Pennsylvania Railroad, which has been giving other articles the preference during the colder weather, but are beginning to increase again. The stock on hand comprises shipments from Canada as well as from other points. The prices as officially quoted are practically unchanged, but dealers are said to be cutting prices a little on grades below No. 2. Clover and clover mixed, however, are in rather light supply and are bringing full quotations. Receipts during the week were only 277 cars, as compared with 445 cars the same week last year.

The arrival of straw was also unusually light. However, there is no prospect of scarcity, the conditions being caused by the storm and severe weather, besides which, the supply on hand is quite large. In Buffalo every arrival of hay of all



THE WORDEN GRAPE.

grades is reported, and prices are rather weak. Baltimore hay market is firm on the better grades. The Western markets show some increase in receipts, and prices, barely firm, are tending down ward.

The Canadian hay trade is reported rather unsatisfactory. Prices for the season's sales have been less and must be expected from the active demand in the States. No. 2 has been sold for \$6 and \$7, f. o. b., and sales as low as \$6 are reported for No. 2, with a little clover mixed. Regular clover and clover mixed have been selling at \$5 to \$5.50. The supplies are not moving off as fast as the farmers would like, and there is a prospect that many will carry their supplies over into the next crop. Most farmers are rather firm in their views and are willing to take prices below quotations, expecting an improvement in the situation soon.

The total receipts at New York for the week were 8520 tons, compared with 11,500 tons of last week, 7670 tons the corresponding week of last year. The following are the lowest prices quoted in the principal markets, as given in the Hay Trade Journal: Boston \$19.50, New York \$21, Jersey \$21, Brooklyn \$21, Philadelphia \$19, Pittsburgh \$18.50, Buffalo \$17, Kansas City \$13, Duluth \$11.50, Minneapolis \$11, Baltimore \$19, Chicago \$14.50, St. Louis \$15, Cincinnati \$17, Washington \$18.50, New Orleans \$19.

## Importing Farm Seeds.

Farm and garden seeds of all kinds are in only moderate supply, and some kinds are scarce and high. Grass seed is likely to be expensive, adding considerably to the cost of seedling down. Clover, however, is not relatively high and may be added to the list of mixtures with advantage from several points of view.

Unusually large amounts of various foreign-grass seeds are being imported this year particularly for the Western trade. One dealer at Lawrence, Kan., received four sacks of cauliflower and cabbage seed from Denmark. Cauliflower seed is exempt from duty, but cabbage pays thirty per cent. ad valorem duty. When sold locally the seed brings \$5 a pound, because of the many expenses attached to its transportation.

Besides vegetable seeds duty is levied every few days upon shipments of larch, elm, black walnut, locust, pear, mulberry, raspberry and currant, cuttings and scions. These come mostly from the provinces of southern France and Germany. They are consigned to Missouri and Kansas nurseries. Clover seed from Germany, Holland and France is also a numbered among the great variety of shipments recorded in the customs offices.

## Apple Situation Slightly Better.

Demand and sales seem more active in the Boston market during the past ten days, although on account of the large supply prices have not advanced. Dealers say the improvement to the decreased shipments, owing to the storm and cold weather, and also to the better condition of foreign markets which have been taking care of a good many apples at fair prices.

For apples, mostly Baldwins from nearby points, dealers quote \$1.25 to \$1.75. The 10-cent grade is classed as No. 1, but is spotted and not really first class. Hard apples from northern New England bring \$2 or more for choice to fancy.

There is still a vast stock of apples in storage and also large quantities in growers' hands. It is asserted that there are 2,000,000 barrels in New York State alone, but the statement is probably excessive. Cold storage has been a losing business in many cases. One Rochester company is said to have lost \$100,000 during the season.

The foreign market continues active, although latest advices show a decline of about 25 cents a barrel. A Boston steamship manager quotes Baldwins at Liverpool \$2 to \$4 per barrel, with many arrivals spotted and selling very low. Russets \$2.65 to \$4. From these figures deduct about \$1.15 for net in Boston. G. A. Cochran, export agent, reports Russets doing well, and netting him in Boston \$2 to \$2.65. Baldwins \$1.92 to \$2.85. This averages him, say, 50 cents per barrel better than he could do in local markets, and is satisfactory. He fears from appearances that the English markets are about to be glutted again with heavy shipments.

The total apple shipments to European ports during the week ending Feb. 21, 1903, were 3,377 barrels, including 28,692 barrels from Boston, 17,811 barrels from New York, 15,262 barrels from Portland, no barrels from Halifax and 7802 barrels from St. John. The total shipments included 41,351 barrels to Liverpool, 11,029 barrels to London, 7800 barrels to Glasgow and 8607 barrels to various ports. The shipments for the same week last year were 38,663 barrels. The total shipments since the opening of the season have been 2,141,287 barrels, against

718,328 barrels for the same time last year. The total shipments this season include 725,719 barrels from Boston, 351,208 barrels from New York, 243,641 barrels from Portland, 476,756 barrels from Montreal, 62,792 barrels from Halifax and 45,111 barrels from St. John.

## The Worden Grape.

This variety was originated by S. Worden at Minnetonka, N. Y., and is a seedling of the Concord. It is especially valuable for Northern climates where the Concord is ripened with difficulty during the short season, because it ripens about a week earlier than the Concord. As an offset to this advantage, it has a rather tender skin which injures its shipping qualities and makes it a rather poor keeper; not quite so good for that purpose, perhaps, as the Concord. It is, however, to be preferred in localities where the Concord is uncertain.

In appearance it closely resembles the Concord, and some nurserymen have palmed off the Concord for this variety. Those who wish to plant it should buy only of nurserymen whose reliability is well known. The illustration gives an excellent idea of the fruit, and is reproduced by courtesy of Dr. James Mills of Ontario Department of Agriculture. It will be seen that the grape closely resembles the Concord in appearance.

The bunch is large and more compact than the Concord. The berry is large and black, skin tender with heavy bloom. The flesh is sweet when well ripened and the pulp tender. In New England it ripens from the early middle to the end of September. The vine is a strong and vigorous grower, with coarse, robust foliage, very hardy and healthy, and as productive as the Concord.

## Literature.

This story of student life is intended to appeal especially to the students of the great institution to whom the recollection of their college days is always dear. Shirley Everett Johnson, the author, narrates the doings of a few young men, their entertainments, and the club which they formed called "The Cult of the Purple Rose." This club started a paper, but only one number was printed, as one of the club's principles was to do the unexpected. A facsimile copy of the sheet called "The Pink Male" is given, containing, as it did, some poems and unusual stories. It was one of a score of diletante periodicals of the time. The stories are entertaining, but are of no special worth, as their development is sophomoric. The book has been artistically bound, and there are doubtless many to whom the volume will make an especial appeal. The author says in his preface that "No Harvard man will take this book seriously," and certainly the general reader will not be inclined to devote much time to its contents after his curiosity is satisfied. [Boston: Richard G. Badger. Price, \$1.25.]

A timely publication, now that the first month of spring is approaching, is "A Woman's Hardy Garden," by Helen Ruth-erford Ely, who appears to be thoroughly conversant with her subject in all its branches. Her object is to tell briefly of a few shrubs, hardy perennials, biennials and annuals, and she writes in an enthusiastic spirit, while conveying a great deal of important information in a comparatively limited space. Her knowledge was gained from a long experience out of doors, and in her early girlhood she passed a great deal of time, for at least six months of the year, in a lovely garden in the company of a gardener who, for a quarter of a century, was the ruler of master and mistress as well as of the ground he cultivated. Under the teaching of this guide, philosopher and friend, she learned to bed roses and fruit trees and watched the transplanting of seedlings, the making of slips and the trimming of grape-vines, fruit trees and shrubs. The garden, however, for several years ceased to engage her attention, but after the enjoyment of maidenhood and the cares of a young wife and mother had passed, her love for gardening returned, and for more than a dozen years it has occupied a great deal of her thought and attention. She is, therefore, well qualified to furnish instruction, and this she does in the simplest and most untechnical manner, without regard to the ideas of a certain class of gardeners who imagine they have nothing to learn from an intelligent unprofessional observer. Mrs. Ely has arranged her work into divisions, covering hardy gardening in all its details, and giving a complete insight into it under many varying conditions that will be of great assistance to the amateur. She says that flowers may be cultivated in a suburban home at a moderate cost from April to mid-November, and will well repay the light labor required. In conclusion, she asserts that if the rich and fashionable women of this country spent more time in their gardens, fewer

would suffer from nervous prostration. Mrs. Ely regards flower gardening as pre-eminently a woman's occupation and diversion, and she regrets that while nearly every great lady in England is devoted personally to her gardens and conservatories, the majority of women in our own country, who are the mistresses of large country estates, leave the direction of the flowers to the hired gardener, and thus miss a great and healthful pleasure. The volume has numerous illustrations from photographs taken in the author's gardens by Prof. C. F. Chandler, and they add materially to the value of a text, which is admirably clear in its way of imparting information. The book in all its developments fulfills adequately the promise of its title page, and this can be said of few of the volumes of the present day that pretend to be of a popular practical character. [New York: The Macmillan Company. Price \$1.75 net.]

Frederic I. Carpenter has edited this morality play, "The Life and Repentance of Marie Magdalene," written by Lewis Wagner and forgotten for many, many years. At this time, when the morality play is enjoying a revival, it is quite appropriate that we should have this ancient plate brought out, founded, as it is, on one of the sweetest stories of the New Testament. Mary Magdalene washed the feet of Jesus with precious ointment and wiped them with the hairs of her head. What a blessed memory it must have been to her through the dark days of the crucifixion, when the future looked so dismal to the disciples of the Christ who had met his death with many things unexplained. Their mainstay was gone and they were sheep without a shepherd. To such a sinner as Mary had been, under the old law her faith in the Son of Man, who had comforted and sustained and forgiven her, must have been great, indeed, if no forbidding or fears did not come to her in that hour. However, Mr. Wagner does not follow up her story beyond the washing of her Master's feet. Much more time is spent on the first part of her life when she was tempted and when she sinned. The virtues are personified, such as prudence; and infidelity, the son of Satan, pride, cupidity and carnal concupiscence are all attributed as people, and each pleads his cause with Mary. She grows to enjoy this company until she is roused from her sin by the Law, which is also personified and speaks to her. When conscious of her position that by the Law she is lost, she turns on the accusation with the words that the Law applies to men, as that women have no souls. She is made to see that she cannot escape the penalty of her sin, so she cries out for mercy—

"If there be no more comfort in the law than this, I wish that the law had never been made; In God, I see, is small mercy and justice, To entangle men and snare them in such a trade."

The Law replies: "That thing which I cannot do through my infirmity. God is able by His Son to perform in time appointed. All things come to shadows of His majesties. Now how in this time God hath answered."

Mary is now eager for the Messiah and quickly inquires for him. If she can have faith she will be saved she is told, and then she meets Jesus. Seeing Him she believes and she is saved. She had been hard put, and in her relief she poured out the best she could get in gratitude. What act could better show her gratitude than the washing of His feet. She evinced her humility of spirit and reverence of soul when she laid her most expensive perfume as only fit for those wearied feet. The hairs of her head served as her drying towel, and all this she did quietly and in the pure gratitude of her heart. In the midst of the feast Mary appears, and of heart, for the more she repents the more grievous seems her sin, and she feels herself unworthy of Christ's mercy. She has been made an example of, and she is heavily laden with the fear she may demean her Master by her future life. Christ's words to her at the washing of His feet are a crowning point in her life. She is strengthened and comforted and is made to be of good cheer. The author has brought out human nature very strongly in his characterization of Mary. She is constantly before the audience in the play, as Jesus only appears when necessary for her repentance and the supper. The old way of spelling, together with the use of what are now obsolete words, makes the text somewhat difficult, but the notes explain the obscure passages. On the whole, it is very interesting and instructive as an admirable example of the old morality play. [Chicago: The University of Chicago Press.]

There are many editions of Shakespeare, but when the student's needs are to be considered, the size of the volumes and the price, are the main considerations. These factors have evidently been considered by Macmillan in the series of pocket editions of the classics which this well-known publishing house is bringing out. "As You Like It" is an attractive book in its neat, crimson binding with white lettered title. The introduction and notes are furnished by Charles Robert Gaston which fully illustrate the text. A special care has been taken in preparing these notes to have the student gain a clear idea of any Shakespearean word found in the text, and also not to lose the dramatic charm of the play. A short sketch of the Bard of Avon's life is given, and there is also a treatise on the stage of Shakespeare's time, together with the necessary comments of the play itself.

Turning from English literature, I take up another volume belonging to this pocket series of Macmillan's entitled "Early American Orations." Some of the best addresses in our country's history are found in this little volume, edited by Louise R. Miller. John Hancock is especially eloquent on the subject of the "Boston Massacre." Strong themes are these which the old patriots dealt with, and they were equal to the demands of the times. Patrick Henry will always be remembered for his liberty-loving speech. And how these eloquent men could talk and fight, too, when the time came. Whose soul has grown so dead that he cannot now respond to the natural oratory of these mighty leaders who gave their blood as well as their talents to their country. Richard Henry Lee, Alexander Hamilton, Washington, Jefferson, Morris and Henry Clay are included in this list. Their words stirred men's souls years ago, and they are in the midst of perplexing problems today can look back upon those anxious times and repeat Henry Clay's words, "And in conclusion I pray God in His infinite mercy to keep from our country the evils which are impending over it and by enlightening our councils to conduct us in that path which leads to riches, to greatness and to glory." The editor and the publisher have done their work well. Some of the best American oratory is to be found between the covers of this dainty and durable volume.

## Gems of Thought.

...Sacrifice brings its reward by converting simple duty into positive happiness. We have attained our end in the liberty to work freely for God.—John James Taylor.

...How far that little candle throws its beams! So shines a good deed in a naughty world.—Shakespeare.

...In our higher and happier moods, I think we all have visions of the truth that we know are not can be paid for our best save only in the doing of it. Our finest devotion is never recompensed in terms of the market. It never can be. We give ourselves, and in return our larger life.—Frederick L. Hosmer.

...Demand of every common thing of life, whether it be your body or your money or your daily experience, that it shall bloom into fine results in your own soul and in your influence on the world.—Phillips Brooks.

...For every suffering heart there is at hand or can be found some noble task into the energy necessary for the doing of which it can transmute the energy of its grief and pain.—John White Chadwick.

...Be noble! and the nobleness that lies within will rise in majesty to meet thy own. Then with thou see its gleam in many eyes, Then with pure light around thy path be shed.—J. R. Lowell.

...And thou wilt nevermore be sad and lone. The one right use of our faith in immortality is neither as bribe nor as menace, but simply to free us from all disturbance about the consequences of righteous action, to give us strength to look singly at the quality of our life, not at all at its results.—John Hamilton Thom.

...Every man's task is his life-preserver. The conviction that his work is dear to God, and cannot be spared, defends him from Emerson.

...Kind thoughts are the roots, Kind words are the flowers, Kind deeds are the fruits.—C. H. Redfern.

...One burdened heart has been the bearing of a revival many a time. If you are moved in your holiest moments to join with others, do it at whatever cost. A religion that is not worth a little extra time is not worth holding. Pray first for self and then for others. Hold mind and heart to the one desired blessing. There are other duties, cares, delights; but let heart and mind keep reverting to this. Remember these two words: Definiteness, importunity.—B. A. Greene.

...In darkness there is no choice. It is light that enables us to see the difference between things; and it is Christ that gives us light.—Guineas at Truth.

...Of all sweet mysteries holiest! Faded are rose and sun! The highest tide in the sea is the Father and I am one!—Charles G. Ames.

...If there be in us a divine element, no wonder it should instinctively seek communion with its source, and that our religious belief and our religious fervor should be in proportion to this clearness and force of the witness of God's spirit with our spirits, that we are His children.—Thomas Sadler.

...For 'tho' from out our bourne of Time and Place The flood may bear me far, I hope to see my Pilot face to face When I have cross'd the bar.—Tennyson.

...Love is the everlasting worker of miracles. When all seems hopeless, and the soul is sinking under the load that has no turning left, it is awakened to love, and immediately all the forces of the spiritual world converge upon it to lift it toward God. Love is the savior, love is the perpetual wonder of life.—Edward Howard Givins.

## Brilliant.

Though Poverty keeps the door Through the sad and solemn years, Never a man on earth is poor With the gift of Love and Tears.

For know: If the skies be blue, Or black with a storm, and the sun, God gives blessings undreamed to you With His gift of Love and Tears.—Frank Stanton.

Chill twilight hovered o'er the world, The earth and sea and sky were gray, The banners of the spring were furled Above the prison of the day.

The wood birds had no leisure to sing, The poppies had no wave nor flame, There was no grace in anything, No stir of joy; and then—you came.

Was it your step the bleak dawn heard? Lo! Rivers leaped to greet the sun, From out the forest a sweet wind stirred, And roses blossomed—every one.

Sweet sang the lark! The hills flashed green And sails swelled white upon the mere; Glad rangers swung their sickles keen, The world awoke—for you were here.

—Herbert Templeton, in Munsey's.

Ye need not rue to leave the shore: Not seldom youth is wiser than the sage With ripper wisdom,—but to age Youth, youth, returns no more!

Be yours the strength by will to conquer fate, Since the man who sees his purpose clear, And gains the knowledge of his sphere Within which lies all happiness.—

Without, all danger and distress,— And seeks the right, content to strive and wait,— To him all good things flow, nor honor crowns him late. —Edmund Clarence Steadman.

Beyond the burning chafery of noon, The wind's elusive, airy, and elusive, Between the sunset and the primrose moon, There is a rapture all unknown of these,— The harmony of twilight, Nature's note, Prolonged, pellucid, subtler far than day, Bearing the lifted soul till it doth float Upon the heart of night and find its strong.

Against this bar the tides of tumult fall, And waves slip back into a silent deep, The world, beneath a white and windless sail, Drifts outward to the heart of sleep, And thought, starlike, doth rise above Time's shoal.

To find thee still,—thou starlight of my soul! —Virginia Woodward Gould.

Be strong! We are not here to play, to dream, to drift; We have hard work to do, and tasks to lift; Shun not the struggle—face it; 'tis God's gift.

Be strong! Say not, "The days are evil. Who's to blame?" And fold the hands and acquiesce—oh, shame! Stand up, speak out, and bravely, in God's name.

Be strong! It matters not how deep entrenched the wrong, How hard the battle goes, the day how long; Faint not—fight on! Tomorrow comes the song.

Time is the atmosphere of God Our morrows and our yesterdays Are but the wind that sports and plays Upon the surface of the flood.

Life adds another to its rings; Love's calyx, with its heart of gold, Will slowly in the light unfold, For God is in the soul of things. —The Rev. Dr. J. T. McFarland.

## CATTLE FOOT AND MOUTH DISEASE.

The prevailing disease can be prevented, checked and controlled by treating with glycerine an article which possesses the most desirable properties to destroy the germ, relieve the affected parts and remove any possible opportunity of causing the animal to be destroyed. Express filled with sponge and Price \$1.25. Express paid. Send at once. Glycerine has the words of admirers. WALTON COMPANY, Box 3933, Boston, Mass.

## Useful.

The average of the Canadian (the 79th) pounds. Experiments were made for the production of honey showed that honey was produced and the smallest inches in size made in feeding. The natural soil colonies on Sep surplus of syrup bees, by means of syrup was supplied of unseasoned served in the be. The average was put into winter and when removed. Experiments sizes in the section of foundation work on them. Only a few only one-half oration were well done on sections used. Similar experiments with ent sizes. An experiment of determining fruit. On Sep surplus honey to plants, ripe grapes were on branches of tree.



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## Poultry.

## Thorough Work for Lice.

Keep your fowls free from vermin. Provide a dust bath; paint the drooping boards at least twice a year with some good liquid kerosene; whitewash the house twice a year, spring and fall. If mites ever get in the house, take everything out, for in a well-regulated poultry house, everything is movable.

Spray it well with kerosene emulsion made as follows: One pound of soap well shaved in one gallon of water. Bring to a sufficient heat to dissolve the soap. Remove from the fire and add one gallon of kerosene. Agitate thoroughly until of the consistency of cream. A spray pump is an excellent agitator. You can now add ten or twelve gallons of water. Use this mixture to spray house and everything thoroughly. Repeat in ten days to get the lice.

C. A. SMITH.

Krupp, Wis.

## Setting the Nests.

Every poultry place should be provided with a hatching pen, separate by itself, in which to set the hens when they become broody. Let them remain on their usual nest for a couple of days; then after night remove to their new quarters. Place a dummy setting of eggs under her, make her nest box dark by means of a gunny sack or board, place feed and water before her. When she comes off see that she goes back again; if necessary, fasten her on, and in a couple of days she will get down to business, and will be as firmly established as a mule that doesn't want to draw.

Now dust her thoroughly with some good insect powder. Three days before she is due to hatch shut her again. It won't hurt the eggs nor the chicks.

Should an egg become broken in the nest, wash the smeared eggs with tepid water, clean out the nest from the broken egg and place them back again. Eggs smeared over with broken eggs are hermetically sealed and will not hatch.

## Dosing a Fowl.

Pills are a convenient form, and for poultry they never need be larger than four or five grains; but better than these pills are gelatine capsules, which my own poultry will pick up of the ground. If I want to give one of my own fowls a dose of medicine, I have only to get it into a corner by itself and throw down a raspberry-colored capsule, and the bird will pick it up of its own accord, and swallow it whole. This is really far better than having to get a fowl and force a pill down its throat, and I want to emphasize the importance of treating a sick fowl as you would treat a sick child—do not make it worse by having a struggle every time a dose of medicine is necessary. Failing a capsule, a small pill will generally be taken without difficulty by a fowl if it is placed in the middle of a little piece of moist bread.

There is another point. Most people seem to have very crude ideas as to what constitutes a "dose" for a fowl. I come across people sometimes who think nothing of giving a large pinch of cayenne pepper to a fowl. I have known as much as a quarter of a teaspoonful to be given to one unfortunate bird. When the farmer is tempted to give cayenne pepper to his birds let him remember that one grain of cayenne pepper makes eight doses for a full-grown fowl. The use of cayenne pepper is as an occasional—a very occasional—internal irritant, the object of which is to act slightly upon the liver or to excite the digestive organs and make them a little more sensitive than usual. The folly of overdoing must be one which causes more suffering to poultry than to any other members of the animal kingdom. I can give another instance. I hear of people giving a tablespoonful of cod-liver oil to a fowl, and I always tell them that if they would give a full-grown fowl fifteen drops (that is to say, just exactly one-sixteenth of a tablespoonful) three times a day it would do a great deal more good; for the system of a fowl can only assimilate a small quantity of the oil, and the bromides and the phosphates and the iodides in cod-liver oil, and what is given beyond that is waste, or worse than waste, for it tends to cause hypertrophy of the liver. Small doses of medicine given frequently and regularly are infinitely better than big doses given unsystematically and spasmodically.

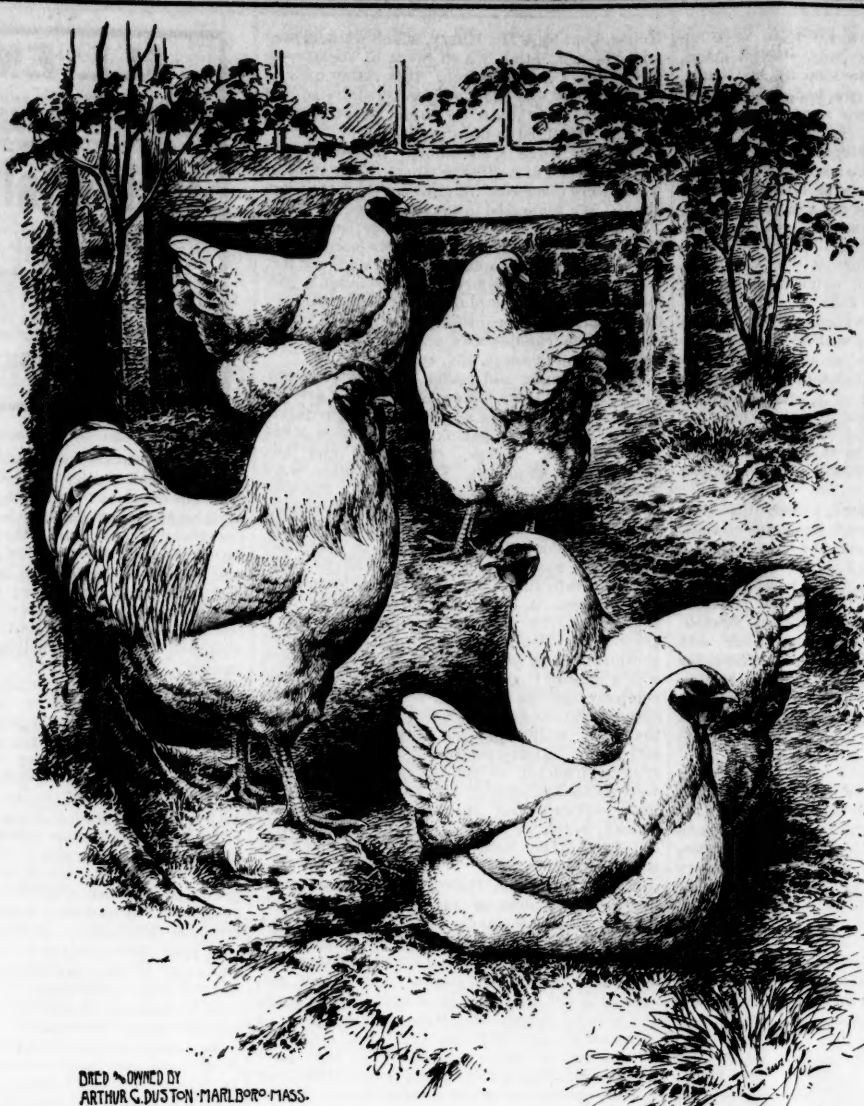
W. M. FREEMAN.

## Useful Tests with Bees.

The average returns from the apiary of the Canadian Central Experimental Farm were 70 pounds extracted honey per colony. Experiments with different kinds of hives for the production of comb and extracted honey showed that the greatest amount of honey was produced in the Langstroth hive, and the smallest amount in a hive 15x20x15 inches in size. Experiments were also made in feeding sugar for winter stores. The natural stores were removed from four colonies on Sept. 17, 1900, and a constant surplus of syrup was kept accessible to the bees, by means of a Miller feeder. The syrup was supplied at about blood heat. No sign of measuriness or dysentery was observed in the bees during the whole winter. The average weight of the colonies when put into winter quarters was 52½ pounds, and when removed 40½ pounds.

Experiments with foundations of different sizes in the sections indicated that full sheets of foundation are best. The bees began to work on them first and filled them out better. Only a few of the sections which had only one-half or one-fourth sheet of foundation were well filled, while no work was done on sections where no starters were used. Similar results were obtained in experiments with brood foundations of different sizes.

An experiment was made for the purpose of determining whether bees injured whole fruit. On Sept. 7, when there was no surplus honey to be obtained from outside plants, ripe peaches, pears, plums and grapes were exposed inside the hives, on branches of trees in the apiary inclosure



PRIZE-WINNING WHITE WYANDOTTES.

and on shelves in a workshop to which the bees had access. The fruit was exposed in three conditions, with the skin intact, with the skin intact and dipped in honey and with the skin punctured in several places with the blade of a knife. It was found that wherever the fruit was exposed the bees began work at once upon the fruit that was dipped in honey and upon the punctured fruit; they worked steadily upon the dipped fruit until all the honey was removed, and sucked the juices from the punctured fruit until it began to decay. In no case was any injury done to the whole fruit, whether dipped in honey or not, and this remained true even after the experiment had been continued for three weeks, at the end of which time many of the bees began to die of starvation.

## Storage Eggs.

Some of the Boston dealers who tried to make money from putting eggs in storage last year will fail to clear the large profits expected. Prices went down unexpectedly early in the winter, long before the stored eggs had all been placed on the market.

"Last year at this time," said a South Market-street dealer, "eggs were about one-third higher than at present. As things were last winter, it was a sure thing to make money by storing eggs. They went up early, stayed there a long time, and the demand was all right. This year they went up O. K. in November and December, but came down again before we could sell."

"But why didn't they sell the stored eggs at Christmas, instead of holding them?"

"It couldn't be done. High prices check the demand. Some buyers will take nothing but fresh eggs. A storage egg must be sold for what it is. Of course, the eggs might have been forced on the market at some price, but we were all expecting a longer season of high quotations."

The dealer was candling a lot of storage eggs, holding them up to the tester, so that the light instantly showed their condition. Good eggs were clear and bright, with a small air cell. Those not quite so good were more or less muddy, streaked or dark. Most of them had a large air cell, which the dealer said was a characteristic of stored eggs and caused by shrinkage. The different grades were sorted out, and almost anything that could be called an egg was to be used for some purpose.

"I suppose we get some of the Nos. 2 and 3 at the bakeries," he suggested.

"Not so many. A good deal of the cheap cooking stock comes as 'frozen' eggs. They are kept above freezing and are never broken on purpose. But the eggs for freezing are taken from the shell, dumped in cans, mixed together, with possibly a few sound eggs or some foreign substance being added to destroy whatever bad odor there might be. The cans are then placed in cold storage, frozen solid and delivered according to order. The principal customers of dealers in this business are bakers, in fact, about the only customers, who thaw the eggs and use them in making cake, etc. Thousands of pounds of frozen eggs are sold annually in New York and other markets, and, of course, dealers in strictly good eggs lose just that much trade. There was a time when eggs in the condition of those now used for freezing were used for glazing purposes, glazing leather, etc., and they are still used for those purposes; but a large percentage of the rejected eggs are now mixed together, frozen and sold as sound eggs. It is claimed by leading New York egg dealers that a large percentage of the product known as 'frozen eggs' and sold chiefly to bakers is not made from sound eggs, but, on the contrary, contains eggs that would not pass inspection and would be rejected by the trade generally, being broken, cracked, spotted or 'blood-shot' and not fresh. The authorities make it hot for dealers who put up eggs of this grade. Cold-storage eggs are a different class from frozen eggs, and are all right enough, but not quite equal to fresh ones."

"Any one can put eggs in storage. No reason why poultrymen shouldn't do it themselves if they choose. The charges for storage are about one cent per dozen. At present most Eastern growers prefer to sell their eggs at once. Eggs that we buy for storage are from the West, and as near fresh laid as we can get them. It does not pay us to buy costly nearby eggs. We buy in spring when we think the price has touched bottom. This buying in spring and selling in winter helps to make prices more even. There is no season of the year now when eggs go very low down, because the storage men snap them up in a minute, as soon as the price gets where they can see a profit. Yes! the egg situation is changing fast since cold storage began to take effect."

## Dressed Poultry.

The prize poultry at the recent Canadian winter fair was shown by Messrs. Woodrow & Sons of Beaconsfield, Ont. The turkeys, in particular, were very heavily meaty, plump and white fleshed. The method of feeding had much to do with the result. Mr. Woodrow feeds for a period of about five weeks in all, a preliminary diet of whole grain—corn chiefly—and chop—oats and corn—mixed with skim milk to a stiff consistency, and fed in troughs. A crammer is not used. The finishing period is one of about twelve days, and the birds are fed three times daily, about 10 A. M., 1 P. M., and again in the evening. No hard grain is used in the finishing, but a mixture of oats and barley, not more than quarter of the latter, ground fine and sifted and the end approaches, mixed with skim milk, soft enough to eat freely, constitutes the chief diet. If the birds show signs of getting off feed, a breakfast of hot roasted corn is fed, whole. The night feed is tallow, in the rough. This tallow is fed crumbled, and about a handful to each bird. This insures the bright, light-colored flesh that is so desired. Mr. Woodrow says that when no tallow is fed, the meat is a bright yellow, the price is reduced about two cents per pound. The birds are allowed out on the ground in yards during the day and driven into sheds or pens at night, without roosts, but straw-floored. The spring herds weighed about sixteen to seventeen pounds, and the gobblers twenty pounds. The starving and killing Mr. Woodrow considers most important matters. "The birds are always starved a full forty-eight hours before killing."

## Horticultural.

## Enormous Crop of Oranges.

The value of the California orange crop this year has been estimated at fully \$8,000,000, including lemons. About 2,000 cars will be required to move the crop to Eastern markets. Some damage has already been inflicted by frost, but not enough to greatly change the crop value. The quantity is about 20 per cent. greater than the crop of last year, and appears to be the largest on record.

The bulk of the crop will be disposed of in February, March and April. Before Feb. 1, about 5000 carloads had been forwarded, including 750 carloads of lemons. This month the bulk of the crop is beginning to move, and the season is in full swing. A carload contains about 300 boxes, so that the crop would total fully 8,000,000 boxes, worth at least \$1 per box net to the grower.

The crop is now handled almost entirely by a system of exchange through a local association of growers, which unite for the purpose of preparing their fruit for the market. The general exchange includes about seventy local associations, covering all the districts in southern California. The average cost of marketing by exchange has been about three per cent.

The first orange trees in California were started by the Spanish Missionaries, and for one hundred years the fruit barely proved sufficient for local needs. The industry has been developed since 1843, and the date marks a new period in the orange growing on account of the superiority of the new variety. About 1880 the shipments were about twenty carloads, but by 1893 they had reached 4000 carloads. The growth since then had been very rapid, as shown by this year's enormous product. The lemon industry has also increased very rapidly. California lemons, like oranges, are seedless, or nearly so, and are found by actual tests much more juicy and finer flavored than the imported varieties.

## The Vegetable Market Active.

Boston dealers say the recent holiday season was an extremely busy time, owing to Sunday and holiday coming close together. The demand was very good in most lines of vegetables, fruit and Southern truck. Good prices for household stuff are fully maintained, although poorer grades of lettuce weakened a little on account of increasing supply. Cucumbers of local production are very large and fine, and bring top rates both in Boston and New York markets, where many of them are shipped. Rhubarb advanced a little on account of the demand. Southern strawberries maintain quality well, but prices tend downward as the supply increases. Sassafras & Co. had a novelty this week, in the shape of handsome Wilson plums from the Cecil Rhodes Farm in South Africa, price \$1.50 per dozen. The general line of Northern vegetables shows few, if any, important price changes. Potatoes possibly rule a shade lower, but the decline is slight. Celery is scarce, very few New England growers having any to

sell. Wednesday a steamer from Norfolk, Va., brought two hundred barrels of spinach.

New York onions are reported in rather light supply. Cabbages plenty as ever, and holders inclined to force sales by cutting prices. Celery is scarce, only a few Northern growers having any on hand. The potato market is steady for prime stock, but poor lots sell with difficulty and at low prices.

In the truck district of Florida the vegetable season is well under way. Farmers are planting their Irish potatoes, radishes, celery, turnips, lettuce and mustard which are to be had fresh from the garden. Shipments are beginning, and there is likely to be a large increase. Truckmen seem to be enthusiastic over the outlook, and some of them are increasing their areas. Advice from Jacksonville the first of the week indicate that the recent cold spell did less harm than might have been expected. Strawberries, lettuce and early truck seem to have escaped. At Tampa truck farms were flooded and much celery spoiled. The price of celery is beginning to rise. In southern Georgia the cold was more severe, and peach buds were said to be seriously injured. In northern Georgia reports say the peach crop is wholly ruined by the freeze of Tuesday night. In Texas strawberries and tender truck were frozen, and the shipping season will be delayed.

## Reported Corner in Broom-Corn.

The market for broom-corn has long been variable from year to year, as compared with other common products, and experts have for some time been in doubt as to whether the present state of the market is owing to natural conditions or to the operations of large speculative buyers. Recent reports to the Chicago market indicate that the long-attained corner in broom-corn has practically been accomplished. The crop of 1902 is cleared up, and the holders, according to advice from the broom-corn districts of central Illinois, are planning to raise the price for the better grades to \$100 a ton. The condition is also evident in Oklahoma, Kansas and other broom-corn sections. One-half of last crop has been made into brooms, which leaves eleven thousand tons to run the factories for eight months. Only a few of the larger plants have sufficient material to last the remainder of 1903, the others having bought only for immediate wants. The corn worked down as low as \$40 on the strength of an enormous crop, and when real condition became known, it advanced to \$60 and then to \$80. Holders think they will have no difficulty in advancing the price to \$100 for the best stock, and \$110 a ton may be reached before holders release any of their stock.

## Good Apples for New England.

In a February issue of your valuable paper Prof. W. M. Munson, horticulturist of the Maine Experiment Station, is referred to as making a selection of fruits for central Maine. I find no fault with the selection, except the leaving out of several valuable varieties, viz., Rhode Island Greening, Roxbury Russet, King and Yellow Bellflower. The Rhode Island Greening is second only to Baldwin for productiveness and profit. It is selling higher than Baldwin at the present time in the Chicago markets, and it sometimes sells as high or even higher than Baldwin in the English markets.

Roxbury Russet is one of our most valuable and productive winter sorts, valued for its long-keeping qualities and the high price it brings in the spring and early summer when nearly all other varieties are out of the market. King is one of the highest priced apples and brings big money to those who can grow it successfully. Yellow Bellflower does remarkably well in soils and locations adapted to its peculiar character and needs, and in many Southern markets it is preferred to any other.

A word concerning the Baldwin. Professor Munson says it is a handsome apple, but poor in quality. With the latter part of that statement I do not agree. On the contrary, I call it very good in quality when grown in perfection, and although it cannot be classed among highly flavored fruits, yet it has a rich, juicy, sugary quality, and is distinguished for its yellowish-white flesh and firm texture.

Charles Downing, one of the best authorities on fruits of America, has said of it: "The Baldwin stands at the head of all New England apples, and is unquestionably a first-rate fruit in all respects. Flesh yellowish white, crisp, with that agreeable mingling of the saccharine and acid which constitutes a rich, high flavor. Very good." I need say but little more. The Baldwin stands today, as it did in the day, at the head of all New England apples for market

and for general use, and I cannot understand why Professor Munson should call it a poor apple. It may be because in his section it is poor on account of inadaptability of soil.

W. P. A.  
Granite Hill Farm, Hallowell, Me.

A disease somewhat resembling the foot and mouth plague, but entirely distinct from that malady, has been giving much trouble in Salisbury and Cornwall, Vt., among the swine. Quite a large percentage of cases are fatal, but the malady seems to be confined to one locality and is not spreading.

The official wheat report for France shows a total of 14,367,467 acres of winter wheat. The average condition for the whole of France is 70.5 per cent., as compared with 69.9 per cent. last year. Oats show a total of 2,004,707 acres. The average condition is 65.1 per cent., compared with 64.4 per cent. last year.

Massachusetts fruit growers are planning a lively meeting at Worcester, March 11 and 12. The speakers include George T. Powell, Dr. E. P. Felt, Prof. A. G. Guley, Arthur A. Brigham, Victor G. Hitchings and probably Miss Anna Farrow.

To increase the export of Siberian butter the Department of Agriculture of Russia has appropriated \$30,000. In his report of the plan to the State department United States Consul Smith at Moscow says the money will be used in increasing the number of instructors for creameries in western Siberia, in maintaining creamery schools in Kurgan and Omsk provinces, educational courses in creamery economy, establishing five examining laboratories, in the organization of creameries in western Siberia and for traveling expenses of instructors.

Eighteen new rural free delivery routes will be installed in the first congressional district of New Hampshire on the first day of next May.

At the recent meeting of the directors of the Vermont Maple Sugar Makers, V. I. Spear, the manager, reported a profit of \$671 for the year, and a dividend of three per cent. on the stock was declared. The officers elected were: President, M. H. Miller of Pomfret; Vice-President, Cullen B. Snett of Bradford; Clerk, E. L. Bass of Randolph; Treasurer and Manager, Victor I. Spear of Randolph; Auditor, H. W. Vail of Randolph. The business session was closed by a social, and the association will place a salesman on the road. The next annual meeting is expected to be held at Stowe, Vt.

The ninth annual meeting of the Massachusetts Fruit Growers' Association will be held at the Horticultural Hall, Worcester, Mass., March 11 and 12. The management have already secured the services of Prof. A. G. Guley, the newly elected president of the Connecticut Pomological Society, Dr. E. P. Felt, New York State entomologist, Arthur A. Brigham, formerly at Kingston, R. I.; George T. Powell, director of the School of Practical Agriculture and Horticulture, Poughkeepsie, N. Y., and Grant G. Hitchings, formerly at the gold medal apple show at the Pan-American Exposition. The society is in a flourishing condition, and much enthusiasm has been manifested at its institutes this winter. A large attendance and a lively meeting is assured. All are welcome to attend and take part in the discussions. The society expects to print a detailed programme next week. Any of our readers may obtain one by sending their name and address on a postal card to the Secretary, C. A. Whitney, Union, Mass.

In the crop year 1902, crop wheat made lowest price record in 42 years, viz., since 1822, of 44¢ on Jan. 29, 1895, against lowest thus far this crop year of 67¢ in October, 1902. The lowest in 1902 was 31¢ in January and highest, 75¢ in July. In 1901, the year of 1893 \$1.13 was reached in October. There were several causes for the very low prices in 1894-95, viz., the after effects of the panic of 1893, the increase in European crop of 24,000,000 over 1893 and of 147,000,000 over 1892, and the accumulation of large old crop reserves the world over.

Bradstreet's reports exports wheat for week 2,713,792 bushels, against 2,856,439 bushels last week and 3,069,435 last year; since July 1, 1902, 17,520,000 bushels, against 17,531,550 last year. Corn for the week 3,729,427 bushels, against 1,830,170 bushels last week and 2,173,830 bushels last year; since July 1, 2,370,643 bushels, against 2,806,326 bushels last year.

A movement is on foot at Geneva, N. Y., and elsewhere for the coalition of the New York State Experiment Station and Hobart College, with the idea of forming a large agricultural college. The plan originated with some of the alumni of Hobart, who brought it to the attention of the trustees, with the result that they appointed a committee to investigate. It is claimed that the affiliation of the two institutions would be of material advantage to both in increasing the scope of their respective work. The plan is opposed by the experiment station officials. To make the change, an enabling act would have to be passed by the legislature.

The staff of Government crop reporters numbers now 2200. There are also thirty-eight men stationed in the most important agricultural States, and these men have about 10,000 special correspondents. Then in each agricultural country, the Government has still another crop reporter. The Government has three or four correspondents. Not content with this, the Government has still another staff of correspondents in each township and voting precinct in the United States where there is any farming. There are 30,000 of these men. To compare the figures for the production of grain and cereals, Uncle Sam gets separate reports from 85,000 farmers and 22,000 railroad men. Almost all this work is done without pay. The number of reports that have been handled in Washington in one year has been as high as 2,500,000.

At the time the twelfth census was taken there were, as recently reported, 33,003 establishments engaged in the lumber industry in the United States. The amount of lumber produced by mills was 35,084,166 feet, valued at \$566,832,984.

A union is proposed of the fifty-two Maine county agricultural societies, with a view to co-operation in dates, advertising, special attractions, premium schedules and special legislation. The Senate committee on public lands reported favorably, after a lively fight, the Quarries bill, providing for the repeal of the desert law and compensation clause of the home-stead law, as recommended by the President, in his message, in which he calls attention to the wholesale frauds and land stealings which are practiced under these laws. The claim made that the repeal of these laws would be prejudicial

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to the interests of the West, does not seem a truthful one, in view of the fact that such Western members of the committee voted in favor of the repeal as Bard of California, Dietrich of Nebraska, Gibson of Montana and Knute Nelson of Minnesota. It is not expected that the bill will be passed this Congress, but a strong effort will be made in that direction next year. The matter is considered one of national importance, as the remaining public lands belong to the people of the whole country.

"The Mango in Porto Rico" is a title of an interesting report recently published by the Department of Agriculture. The mango is a distinctly tender and tropical product and cannot be grown successfully even in the southernmost Florida. It is, however, one of the most delicious pulpy fruits of the tropics, and is one which like the peach has progressed from a poor, stringy and seedy sort of apple to a large, meaty and delicious heart-shaped fruit. It is rather rare of shipment, but can with proper handling be landed in the United States in a prime condition and will in time undoubtedly become a great favorite. It is as universally eaten in the tropics as the apple is in the temperate zone.

Germany is a large purchaser of meat from this country. The proposed German tariff, it is estimated, will reduce our meat exports to Germany by fully twenty-five per cent. Should it become necessary for the United States to retaliate, we would be able to cripple Germany far more than the proposed German tariff would affect this country, and the knowledge of this fact, it is believed, will cause German statesmen to hesitate about adopting this feature of the new tariff.

The Secretary of agriculture, acting for the Bureau of Animal Industry, issued an order on the 18th inst. prohibiting cattle importation from Mexico until it can be determined whether or not the foot and mouth disease exists in that country. The communication from the British Consul at El Paso, Tex., to London, stated that the foot and mouth disease was reported prevalent in Mexico. The Bureau of Animal Industry immediately took steps to prevent any possible introduction of the disease into the United States. The special inspector of the bureau, stationed at El Paso, was wired to make a thorough investigation of the report. Dr. Salmon said, in speaking of the probability of the introduction of the disease from the Southwest, "we have no information that the disease exists in Mexico, but precautionary measures are considered advisable." Ravages of the foot and mouth disease in New England have thoroughly aroused the Government officials to the necessity for preventive measures wherever there is possibility of further infection.

The number of irrigating ditches and canals in operation in the United States exceeds 20,000, and their combined length is about 20,000 miles.

The Senate committee on finance on the 17th inst. agreed to report favorably the bill providing for the free importation of thoroughbred live stock for breeding purposes. The bill extends the privilege of this class of live stock which is imported for sale.

The shipments of wool from Boston to date from Dec. 31, 1902, are 4,308,667 pounds, against 4,206,396 pounds at the same date last year. The receipts to date are 25,116,408 pounds, against 25,054,538 for the same period last year. The week has been dull and featureless. Prices are not lower, but it is certain that the rising tendency has been checked. Buyers are holding off to see just how far the easier feeling will go. The next London auction sales open there March 10 with 160,000 bales available. In the meantime the new Australian wools of high cost are arriving here and not selling to any extent, while some of that coming in, subject to buyers' approval, is being rejected.

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## Our Homes.

## The Workshop.

**CROCHETED BEDROOM SLIPPERS.**  
Materials: Two skeins German-ton yarn, any color preferred, or two colors may be used, one for the foundation and the other for the border. In this case use one and one-half skeins for foundation and one-half skein for border, a bone hook as fine as can be used without splitting the yarn, two yards ribbon and a pair of lamb's-wool soles.

Chain 16 stitches, using the 16th stitch to turn on.

1st row—Do 1 double in each of the 15 stitches, turn (double crochet is insert hook in stitch, draw yarn through, then through 2 stitches on hook). Always work into back part of stitch to form a ribbed effect.

2d row—Work 1 double in each of first 7 stitches, 2 double in eighth stitch, 1 double in each of the next 7 stitches, taking up back loop of stitch in order to make it ribbed; turn. Be careful not to drop a stitch at the end.

3d row—One double in each of first 7, 2 double in eighth stitch, 1 double in each of next 8, and so continue increasing 1 stitch in middle of each row until you have 37 rows, or 18 inches. Then, double back and forth on 15 stitches to form the side of slippers until you have 21 rows, or 10½ inches. Then increase 1 stitch in each rib (or every 2 rows) by making an extra stitch in the first stitch of the rib on the side which comes up on the ankle (keep the bottom part straight, as that is sewed on to the sole) or making 16 stitches in the twenty-second and twenty-third rows, 17 stitches in twenty-fourth and twenty-fifth rows, etc., increasing for 9 ribs or 18 rows.

There should be 24 stitches in this last rib. Then make the next rib of 24 stitches, the next of 23 stitches, and continue to decrease 1 stitch at beginning of each rib, until you have but 15 stitches left. Then crochet back and forth on these 15 stitches for 20 rows, or 10 ribs, to correspond with the other side of slipper. Break off the yarn and sew to side of slipper.

Border—Commence where the side joins the front. Draw the yarn through the edge and crochet 4 chain for the first double, then 1 double and catch between the ribs, 1 chain, then 1 double and catch between the next rib; repeat all around and finish with a simple shell border. Run narrow elastic through the holes and put a bow of ribbon on the instep.

EVA M. NILES.

## How Not to Be Nervous.

H. T. Patrick says, if you wish never to be nervous, live with reason, have a purpose in life and work for it, play joyously, strive not for the unattainable, never regret the unalterable, be not annoyed by trifles, aim to attain neither great knowledge nor great riches, but unlimited common sense, be not self-centred, but love the good and thy neighbor as thyself. The time to start such an ideal life is in early childhood. Two capital errors in the training of children are deplored by the author: (1) Leading children into pleasures and duties beyond their years and (2) magnifying their importance in the family and in society. It is quite as dangerous to give to children the pleasures of adults as to require of them the labors of the mature.

## Sensations in Drowning.

James A. Lawson describes his experience when dragged under water with a foundered ship. He struck out to reach the surface, but only went further down. This exertion was a serious waste of breath, and after what appeared to be ten or fifteen seconds the effort of inspiration could no longer be restrained, and pressure on the chest began to develop. The most striking thing to remember was the great pain in the chest, which increased at every effort of expiration and inspiration; it seemed as if he were in a vice which was gradually being screwed up tight, until it felt as if the sternum and spinal column must break. The "gurgling" process became more frequent for about ten efforts, and hope was then extinguished. The pressure after these gulps seemed unbearable, but gradually the pain seemed to ease up, as the carbonic acid was accumulating in the blood. At the same time the efforts at inspiration, with their accompanying gulps of water, occurred at longer and longer intervals. The writer's mental condition was then such that he appeared to be in a pleasant dream, but still had enough will power to think of friends at home, etc. Before finally losing consciousness the chest pain had completely disappeared, and sensation was actually pleasant. Consciousness returned, he found himself on the surface of the water (probably from the action of the life-belt), and finally managed to reach shore. His after-experiences are fully described. He hopes that death by drowning will not again be described as a pleasant death.—Edinburgh Medical Journal.

## Surgery in Rural Districts.

In this city, with numerous hospitals, surgical assistants, trained nurses, and all the armamentarium which the modern hospital affords, we are prone to assume that only with such conveniences can clean surgery be done; in fact, that no surgery is being done save in well-appointed places. That the facilities which hospitals and trained assistants afford give us the desirable condition no one will, of course, gainsay; but that they are absolutely essential to aseptic surgery will be disputed, and correctly, by many country doctors. We forget that many parts of our country are far removed from any of the conveniences deemed necessary for successful surgical work. What shall the country physician do, called as he often is, into remote districts to find a patient desperately ill from an affliction demanding surgical interference? Distance, time, poverty and prejudice on the part of the patient dispel all thoughts of a hospital. Illustrative of the difficulties met and the success achieved, a few words quoted from a Southern practitioner of known veracity may not prove amiss. He says:

In modern surgery the first step in any

operation is, of course, asepsis. With abundance of trained assistants, and a small brigade of nurses, in a well-appointed hospital it is a simple matter to be clean. But in the country, in a small farmhouse or cabin, with only surface water and kitchen utensils on the one hand, and rags, dirt, cowbells, and a desperately ill patient on the other, what would our city surgeon and his trained assistants do? One would be safe in saying he would be more confused and less able to apply his presumably more extensive knowledge than his country brother, who has never had the pleasure of hospital facilities nor trained help, but has invariably had to depend on such facilities as his own ingenuity could devise, and with the help of those who, perhaps, have never before seen an operation. But even under these adverse circumstances we can do clean and successful surgery, and it is being done daily by the bright, active, country doctors, and many lives are being saved.

Concerning his method of preparation and adaptation of means to an end we quote further, as follows:

By carefully scrubbing the floor and walls with soap and water, then a strong carbolic or corrosive solution, with all furniture removed and windows open, it is possible to convert a dirty room into a place in which clean surgery can be done. Boil the necessary sheeted towels, basins, instruments, cotton, gauze and suture and ligature material. Water previously boiled is poured while hot into clean jugs or pitchers and allowed to cool. The hands are sterilized in the usual way, and the operating table, improvised by placing a door, shutter or wide board on barrels, chairs or benches, is covered with boiled wet sheets. Small tables, benches or chairs are likewise covered and serve as a place for instruments, dressings, etc. The patient is shaved and scrubbed in the usual way, placed upon the operating table and the field of operation surrounded by boiled, though wet, towels or sheets. The instruments, dressings, ligature and suture materials are covered by sterile towels. The entire time necessary for such preparation should not exceed two hours, and in very urgent cases, and with intelligent and untrained assistance may be done in half this time. Under these apparently adverse circumstances the writer has repeatedly opened up the shoulder, knee and ankle-joints, the skull cavity, and the abdomen without a single instance of infection.

When we remember that such practical and successful work is being done, especially in the sparsely settled portions of the country, by scores of bright, careful and energetic men, it should divert us of some of our preconceived ideas about the absolute necessity for hospital facilities in doing successful aseptic surgical work. Hospital conveniences are necessary for the refinements of surgery; but for practical, urgent and life-saving surgery their necessity has not yet become absolute. The country doctor yet plays an important role in surgery, and it is not probable that this will become less in the future. It is often quoted of the elder Gross that he always felt like taking off his hat in the presence of the country doctor—the broadest, most resourceful and most useful of medical men.—American Medicine.

## Loneliness.

Many persons in the midst of large families are afflicted with a loneliness which robs life of much of the enjoyment it ought to supply. Although surrounded and in constant touch with other members of the family, they are as isolated as if living alone. Sometimes this may be their own fault or choice, since they may prefer to live their lives largely to themselves, and do not offer others opportunities to share in their pleasures or pursuits. These do not need pity, as they follow their own choice. But there are others who crave sympathy; who cannot enjoy anything alone; who are so constituted that the keenest pleasures of life do not come to them except in companionship with others. Unhappy beyond expression are such persons if members of families where there is no response to their desire for companionship. It often happens that mothers who have cut themselves off from all outside interests in devotion to their families find themselves left out of the lives of their husbands and children. Many fathers toil on from year to year for the support of their families with no sympathetic companionship in their homes, to share their burdens with intelligent interest in their cares. Many lives are clouded because in the family circle no one is found to participate in their pleasures and trials. Happy are the families where there is an interest in the affairs of every member. Where all join in common sympathy sorrows are lightened and pleasures are multiplied.—The Watchman.

## When Giving Luncheons.

"Suggestions for Entertaining" was the subject of a recent lecture by Miss Helen Louise Johnson at the Brooklyn Institute, this being the concluding lecture of the series. Her address, covering the usual illustrated talk, which began with the question of table setting.

"For luncheon," said Miss Johnson, "a cloth is not used if the table top is such as to permit its omission. This is, however, a matter of taste, not a rule. In caring for a polished top, it is the rubbing and not what is put on it that does the best work in keeping it in good condition. A polished table top should be frequently rubbed with a soft cloth, moistened with a pure oil of some kind. This is better than a prepared furniture polish, for usually this is made to give a polish without the necessity of rubbing. The table should have what is called a hand polish, for this will wash without spoiling, and does not easily stain, while constant rubbing makes it more attractive.

"The rules for luncheon serving that distinguish it from dinner are not many. Luncheon is usually a woman's meal, which is perhaps the reason for lighter dishes. The table setting is the same, except at luncheon bread and butter plates are admissible. The dishes should be so well cooked as not to need additional seasoning, and unless there are hot rolls to be served butter seems unnecessary. These plates, however, are small, and are used for the bread and the hot courses.

"At luncheon, but not at dinner, the soup is served in cups, and, except for bouillon or clam broth, the soups are cream or those thickened, not clear soups. Roasts are seldom served, small meats being used, or those which may be cooked and served in individual portions.

"It does not seem to me that one should be more careful of the preparation and garnishing of dishes for a formal affair than for her own family. Nothing more quickly betrays the good cook than the manner in which she serves her dishes. Nor is it necessary to live in an extravagant manner to have things properly, even daintily,

served. Care and taste and thought often add to the peace of money, and there are perhaps no entertainments more attractive and pleasing than the little dinners or the little suppers, well planned and served, which have taken time and thought, but not expense.

"It is little things which count; the toast cut in strips or triangles, instead of being left in awkward pieces; the clear soup, absolutely clear and sparkling; the thick soup, smooth and creamy looking; the meats hot and the vegetables cooked so as to retain their shape and color. It is the putting of the food on suitable dishes, not a little roast on a large platter, or worse, for the carver, a big turkey on a small plate.

Larding is a garnish and serves also the purpose of making the meat more tasty. But large, thick lardons carelessly put in do not add to the appearance of any meat.

"In buying pork for lardons remember that it is the part nearest the skin that is required, and do not let your butcher cut you a thick piece, but insist upon having the half-pound in a long, thin strip, so your lardons may be properly sliced.

Sauces add much to the appearance of the dish if the article itself be garnished with the sauce and not swimming in it. The small vegetables, such as peas, beans, carrots cut in pieces, turnips and purées of vegetables may be used as a garnish with the meat, but it is a mistake to serve cauliflower, macaroni, brussels sprouts or asparagus as a garnish. Rice is used as a border for creamed meats and vegetables, and nothing looks better than a garnish of green things, such as parsley, lettuce, cress or celery tops.

One really should have an eye for color in order to garnish prettily. Wilted vegetables never make a proper garnish, but lettuce, celery, cress and parsley should be well washed, kept crisp and green.

"Cold dishes lend themselves more readily to garnishing than hot. For cold meats, aspic jelly is always acceptable and easily prepared; for beef or chicken, extracts may be used, seasoned and cleared and stiffened with gelatine. With fish, boiled or fried potatoes usually make a good garnish, and parsley with lemon. For a boiled fish, hard-boiled eggs, cut and used properly, are a pretty garnish, as they are for moulded spinach. One of the points of serving and garnishing to be remembered or emphasized is that it is not art to disguise a dish so that it is unrecognizable. Fish should be fish and meat meat, and the guests should be able to know what is being served them.

For luncheons, the timbale dishes, small individual ones, are used as much as possible, and yet some people do not have them. Bread and fontage cups may, as a rule, be used in their place, and the fontage cups are not hard to make.

"In planning a luncheon the general order of dishes is as follows: For the first course may be served fruits, cocktails (oyster, clam or fruit), canapés, raw oysters or clams. The soup follows, and the third course may be of eggs or fish, which of course, includes shellfish. A meat or vegetable entrée may follow, after which the meat and vegetables, and an entrée may occur here. Then comes punch or fruit, or hot cheese dishes, followed by the game and the salad, and cheeses may be served after the dessert, if not served as a hot course. Coffee follows. I have omitted giving the luncheon or dinner outline in detail for obvious reasons.

"Fruit is used in so many ways, and no other dish is more attractive than a properly arranged salpicon. This may be served in cups made of grape fruit or orange skins, or in glasses, or on glass plates. At this time of year mixtures of oranges, shadocks, bananas, maraschino cherries and such available fruits are naturally most used. In the spring the mixture of currants and raspberries, with a syrup flavored with orange and lemon juice and then cooled, is most appetizing.

"Oyster cocktails are usually welcome, and for each eight oysters take one tablespoonful of horse-radish, one tablespoonful of tarragon vinegar, one tablespoonful of tomato catsup and one tablespoonful of Worcestershire sauce, one teaspoonful of lemon juice, four drops of pepper sauce and a pinch of salt. Mix well, add the mixture stand until thoroughly chilled and blended before serving. If the sauce and some of the oyster or clam liquor for this recipe is the same as for clam cocktails, may be used."

New York Tribune.

## The Modern Aspect of Common Colds.

J. Zahorsky believes that colds are due to poegenic microorganisms, and are contagious. He presents in support of his views the following propositions: (1) Colds run a more or less definite course. If colds were merely reflex congestions, these should terminate soon after the excitement eased. As a matter of fact, colds last from three to seven days, in spite of our therapy. (2) The inflammation begins at one point and spreads up and down the respiratory tract. This is a common observation, and very much resembles the dermatitis of infectious origin, e. g., erysipelas.

Colds are accompanied by fever and general symptoms. This is especially true among infants. These general symptoms are usually proportional to the extent of the local inflammation. (4) Microscopically, as well as macroscopically, inflammatory changes are found in the mucous membrane. (5) The ordinary secretion of the mucous membrane is soon replaced by a discharge more or less purulent. (6) Specific microorganisms have been isolated from these secretions. Among these, the bacillus influenzae, diplococcus lanceolatus, Friedlander's bacillus, streptococcus, etc., have been demonstrated. (7) The varying clinical picture of colds speaks for a variety in the virulence and character of the bacteria. (8) Colds are contagious. It is hard to conceive how this clinical fact, so easily demonstrable, has received so little attention in the literature of the matter. In schools, asylums and hospitals this fact is very clearly shown almost annually. In family practice, too, the development of one case after another in spite of care is a very common observation. (9) A relative immunity follows each attack. Were colds merely reflex congestions, these congestions should appear after each exposure. But after an attack the individual will be free from a cold for some time.

## School Children in Germany.

In Germany the law requires that every child attend school from the age of six up to fourteen. Parents are compelled to pay a fine in court if their children are absent from school without good cause, and the child must make up the time lost by just as many extra days at the end of his course as he has been absent. Children are called by their last names from the very first of their school days. Their teachers are men almost without exception. The hours for attendance in the winter are from eight to twelve in the morning, and from two to four in the afternoon; and in the warmer months from seven to

eleven and from two to four. These hours are shortened for the younger children. On Wednesday and Saturday, and during the school holidays, the schools are closed. What seems strange to us is that all studying is done out of school. A class not having a recitation, therefore, is sent home, and so it happens that few children are all of the six hours a day in school, as the above hours would seem to indicate. The very little ones, for instance, may be in school from eight to nine, from eleven to twelve, and from two to three, the intervening time being spent at home in play or study. In consequence of this out-of-school study, all books, pencils and stationery are taken home at the close of the morning and afternoon sessions. This has given rise to the use of knapsacks by both girls and boys. These knapsacks are made of leather, either dressed or with the hair on.

If a boy intends to carry his education beyond that afforded by the grammar school, he is expected to enter the high school at the age of nine or ten years, where his lower school studies are continued and languages are commenced in a simple way. Girls in like manner go to a higher school. The studies pursued in German schools are much the same as in our own.

If I were asked what is the favorite amusement of German children, I should answer taking long walks into the country. The love of nature seems to be born with most of them. Besides, they are sturdy young folks, and are perfectly willing to put up with inconveniences. For these reasons they are just the people to enjoy walking in the country, and the practice begun in childhood is kept up during life. When the children go on these long walks, they often carry what we should call a botanical box, a long English walnut mallet, and a half long, with rounded edges, and a lid on hinges), slung over the shoulder by a strap.

## Domestic Hints.

## MAPLE SUGAR FROSTING.

Add one cup of sweet cream to two cups of rolled maple sugar; boil slowly until it will thread from a spoon, about three-quarters of an hour. Then let it get about half cool, stir in half a cup of sifted English walnut meats, beat until it becomes creamy, then spread it over the cake.

## CHOP STEW.

For six persons. One pound of water chestnuts; two pounds of bean sprouts, which can be procured at any Chinese vegetable stand. While the bean sprouts are being washed, chop up, chopping by a quarter's worth of one pound, a Chinese sauce made only in China, and which enters into nearly all Oriental meat dishes. It is a brown-looking liquid with a peculiar flavor and can be purchased at any Chinese dealer. The bean sprouts must be shaved thin; add a little sliced celery, one small onion chopped, half a dozen mushrooms; cut young chicken into small pieces. Have a kettle with peanut oil (in same quantity as used) in it, and place this place the vegetables and chicken all together. Let the oil get cold, working it well until it begins to stiffen. Just before taking off add the bean sprouts, which must not cook too long, as they are better when little more than half done. Drain off the liquor, add a little flour to thicken; salt to taste. Put the oil in a small pan, add a layer of brown sauce. Pour all over the chop stew, stir together and serve.—Good Housekeeping.

## CASTELLANE PUDDING.

Prepare a fine pure of chestnuts, the same as for bavarols with chestnuts; also prepare an English vanilla cream, with eight egg yolks, a quart of milk, and a dash of vanilla. Boil the chestnuts in a small pan, pour into a layer of split vanilla bean. As soon as the cream is done, stir it into the pure of chestnuts, also two ounces of dissolved gelatine; pass the whole through a fine wire sieve into a vessel and place it on ice to get cold, working it well until it begins to stiffen. Prepare a salpicon of chestnuts and candied pineapple cut in three-sixteenths inch dice, cherries (semi-sweet) cut in four, and macaroons cut in four; pour a little maraschino over. Put the chestnuts in a small pan, pour into a layer of split vanilla bean. As soon as the cream is done, stir it into the pure of chestnuts, also two ounces of dissolved gelatine; pass the whole through a fine wire sieve into a vessel and place it on ice to get cold, working it well until it begins to stiffen. 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## The Horse.

## Mange of Horses.

This is a disease of horses corresponding to scab among sheep. The disease is due to a small parasite or itch mite that affects horses only, and the disease is spread by the animals coming in contact with one another, or by being placed in stables where affected animals have been or from using harness or blankets that have been used on diseased animals.

The earliest symptom is the intense itching, as shown by the animal rubbing against trees, fences, sides of the stall or biting the part. Blanketing the animal increases the irritation. The affection usually begins with some small patch and gradually extends over the body. If the skin be examined carefully it will be found to be reddened; there will be numerous small elevations like pimples and hairs will show matting. Crusts form, the hair falls out, leaving large dry patches. In extensive infection the skin becomes thickened and markedly ridged. The animals lose flesh and become generally debilitated and some may die.

The disease responds to treatment very promptly. Strong solutions of any of the sheep dips, especially the coal tar preparations, as zenoletum or chloro-naphtholium, or the tobacco extracts, will soon arrest it. The washing should be thorough and repeated once a week until well. The harness, stalls, etc., will need to be washed with a similar solution to prevent reinfection.

R. A. CRAIG.  
Indiana Experiment Station.

England exported thirty thousand horses in 1902 to Holland, Belgium, France and other countries. There were 32,686 imported, 7146 from United States, 1869 from Canada.

The opening Shire Horse Sale in England shows increasing demand for the best Shire mares. The two-year-old Biscot filly sold for \$1900, another \$1300. The average for nine two-year-olds, \$715; two yearling fillies sold for \$1300 and \$1350. The sale was chiefly mares and colts. One stallion sold for \$2000.

A horse forty-three years old is mentioned in an English paper, the statement being apparently supported by good authority. The writer claims that in horses the age of thirty-five about corresponds to the age of ninety in man.

The insurance of horses is a common practice among European owners of valuable animals, and there is apparently some demand for such facilities in this country, especially for the draft and coach stallions and valuable racing animals.

When a horse pulls badly, the trouble is often in the collar, which is commonly the most unsatisfactory part of the harness. There are too many ready-made collars bought at a bargain and not fitted to the horse, so shoulders have become chafed and tender. Daily washing with a tea made from oak bark is a cheap and effective treatment.

Crescent (2024) will be taken to Canada to participate in the big races on the ice at Ottawa on Feb. 12 and later at Montreal. Ottawa has a regulation mile course laid out on the ice and the races are very exciting and draw immense crowds. The ice record is 1:51, and it would not be surprising if it is lowered at the coming meet. Regular skulies are used in these races, but horses' shoes are fitted with razor-edged calks to prevent them from slipping.

Jerome Kimball says: If you hold a board with the nail projecting from it against a horse, he will crowd against it. A cow will shrink from it. That is why thousands of horses are injured or ruined every year by barbed wire fences, while cattle escape serious injury.

A scientist who has conducted careful tests in the value of horse feeds concludes that grain and shorts may be substituted for oats whenever horses are fed clover or timothy.

Three or four years ago draft and general-purpose horses were selling in the leading markets of the country at \$50 to \$125, while the range as shown by recent reports is now \$90 to \$200. The limit of high prices of the early nineties has not yet been reached. The present market is healthy, but not inflated, and for breeders the outlook is first class.

## The Care of Grass Lands.

Now is the time to begin work on your hay field and meadows. While the snow lies spread your compost or finely pulverized stable manure, or, perhaps, you can wait a little longer, and if you have it use a spreader. This is the easiest and quickest way to apply a topdressing. As the frost comes out over the meadows carefully, and if there are any bare spots where grass has been winter-killed, or any thin places caused by work of grubs, or in any way whatever, scatter freely some new grass seed. It's the even stand in grass, as in everything else, that makes big yield. The yield from some meadows with apparent phenomenal when compared with that cut from nearby meadows where the grass seemed as tall and as thick, yet the difference was due to the fact that the stand of grass on one was even and on the other only thick in spots and thin in places. Be liberal, yet not wasteful, with your seed in bringing up



## GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Wounds, Warts, Puffs, and all humors from Spavin, Ringbone and other bony tumors. Cures all skin diseases of Parasite, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Burns, Throats, etc., it is invaluable. Every bottle of Gombault's Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Write for descriptive circulars, testimonials, etc. Address: THE LAWRENCE-WILLIAMS COMPANY, Cleveland, Ohio.



ABDALLAH 15 (ALEXANDER'S), FOALD SEPT. 22, 1852, DIED FEB., 1865.

your meadows.

If the weather permits, cut your grass as soon as it's ready. This is much earlier in the season than most farmers are in the habit of cutting. When clover begins to bloom in good earnest, cut it down, no matter what grasses may be mixed with it; the grasses, like the clover, are usually then in the best condition. If grass is thin but ripe, don't wait long for it to thicken, a bigger cut may be made by putting off haying a month or so, but hay cut then will be much inferior in quality. Again, an early cut means heavy rowen. The writer has seen meadows left till timothy stems were stripped of blossom in this locality, no second cut was made and the only cut of grass made had to be used for bedding. On the same land four tons of hay have been cut when clover budded and 3½ tons of rowen. Of course the meadow was cared for by two different farmers in the cases cited, one a practical man, the other a dummy. There are altogether too many dummies.

As soon as grass is cut and hay is safely in the barn, give the meadow a topdressing of good grass and grain fertilizer at the rate of five hundred pounds per acre. A good grass and grain fertilizer will contain three per cent. nitrogen, eight per cent. phosphoric acid and eight to nine per cent. potash. A fertilizer with bone basis is not only preferable, but is cheapest in the end, as the effect of bone can be seen for several years. Fertilizer should be applied where possible just before a rain or even during a light shower. Don't cut grass too short, and don't pull it out by the roots, but always make a clean even cut by keeping your mowing machine in good condition, knives sharp, gears oiled, bolts set as though the machine were on exhibition. Don't run your mow too long. Reprow and reseed when there are signs that meadows are running out or soil is in an exhausted condition. A proper care in fertilizing, however, will not allow of or bring about the latter condition.

The use or rather the exclusive use of barnyard manures may have a tendency to bring about an undesirable condition. Stable manures are usually rich in nitrogen and short in potash, a much-needed element of plant food.

It is good economy for farmers to use potash quite liberally in connection with their manure heaps. Not only is the potash needed, but its addition from time to time to the accumulating piles of manure will help to prevent the loss of ammonia by fixing it; the most costly element of plant fertilizer. From one hundred to two hundred pounds of muriate of potash should be used in connection with the manure for each acre, say seventy-five pounds to each cord of manure. Some might like to use eight hundred to one thousand pounds of kainit, but I should prefer the more concentrated salts, for two reasons, less to handle and potash in better form as well as cheaper. Potash is absolutely essential in most soils in New England. For years now farmers have been using fertilizers with an oversupply of phosphoric acid, and short rightly with a lack of potash. Only recently have the fertilizer manufacturers begun to send out properly balanced plant foods. When you buy for your meadows get a fertilizer with plenty of potash in it, even a surplus will do no harm, as it will go toward supplying the deficiency of the soil.

It is as much your fault if you do not get an abundance of corn or potatoes. Be up to date in the care of your grass land and meadows.

J. REYNARD LAWRENCE.

## The Old-Time Pedler.

"Don't the pedlers come through any more, daughter? I've been here for a whole summer and fall, and not one have I seen. When your father and I lived on the farm they used to drive up twice or three times a week, when the weather was good."

The question was asked by an aged woman whose home is now in a neighbor-

ing city, but whose summers are spent with her daughter and son-in-law on the old homestead, whose red brick and cobblestone front stands hospitably smiling upon the level stretches of the great Ridge road just as it has stood and smiled for eighty years. The reply to the old woman's query was that of late years the pedlers had begun to drop off with their visits, until at last they came so seldom that the little children did not know what the red wagons signified.

The vehicles were built all along the same general line, like barges or steam tugs. The length was about ten feet; the height, eight. The box was oblong, and in front an elevation arose over the fore wheels for the seat, which sometimes was protected by a huge sun umbrella. Sometimes two, but generally one horse hauled the outfit, and a weary time he had of it, too, with his out bag slung under his poor old neck and his hide worn bare from the constant shifting of the thills. The red body of the wagon on both sides was planted with scores of little white knobs. These opened up the treasure house within, and each marked the location of a tiny door. Within the wagons were compact and complete "general stores." One could buy anything under the sun small enough to be carried—cloth, tinware, iron utensils, straw and felt hats for men and women, boots and shoes, ready-made suits—but these came later—canned goods, patent medicines, dried fish, tobacco—generally on the sly—needles, pins, threads, yarn, matches, and stuck up in front or looped underneath, brooms of all sizes and qualities. Often a snow shovel and a trio of scoops and spades were laid carefully on the roof. Up in front, under the driver's seat, was a jug of molasses and prepared honey, or some such delicacy for the kitchen or table. The jewelry which the pedler carried he kept close to his person with great show of caution, and the more brassy it was, the more closely he pretended to guard it.

Does any one who reads through this list of invaluable appurtenances to the happy home wonder that the pedler's advent was welcomed by all departments of the house fifteen or twenty miles from the nearest store, and perhaps fifty or one hundred from the nearest city? When the cloud of dust would arise over the brow of the hill on a June afternoon, up would go the cry: "Jim the Pedler's coming, Ma. Run and get Henry, and tell him to have the rags ready."

Then, when the pedler had arrived, would begin a game of win and lose such as has been played since the days of the flood wherever one man had what another man had not, but thought he needed. Little money changed hands in this trade. It was barter, primeval, barbaric barter, except that the things traded for bore the mark of the machine instead of the flint. The medium of exchange was generally rags, "paper rags," as they were known. This included rubber boots, copper at brass junk and lead pipe. In those days paper was made from rags, and the wood-pulp process was still dim in the future. Good rags, no matter of what wool or consistency, had a distinct market value, and the pedler, recognizing this, depended on the farmers' wives to hoard the supply. In exchange he gave them the commodities mentioned, making, of course, a comfortable profit out of the transaction. Good rags brought twenty years ago, from a cent and a half to two cents and a half a pound. The pedler was fair; that is, if he was not exactly fair, he was as fair as he could be, and both sides parted satisfied, the housewife with her huge ragbag bulging out a little further than it did two miles down the road. The ragbag was an index of the state of trade. When the wagon started out it hung limply behind, like a punctured balloon. It was a huge affair, made of coarse burlap, blackened and stained by time and use. Sometimes huge squares of new burlap stood out in startling contrast against the

old face of the bag, in spots where holes had been patched with coarse twine. Into this grimy receptacle the matted rags were hurled with a short, stout, iron hook like an elephant's goad.

The capacity of these great bags was amazing, and on homeward trips they would protrude with mastodon fatness from the rear of the red wagons as far as the length of the vehicle itself, and the poor horse would tug and sweat at his increasing burden as the camels did under the soaked sponges in the table. The rags were weighed on drop scales attached to the rear of the wagon, and, of course, the honesty of the spring within the brass and iron case had an important effect upon the fairness of the barter. At times doubts would surge up in the shrewd housewife's mind, especially when the pedler's scales indicated a weight three or four pounds lighter than her own had registered. But the sight of a polished gray granite iron surface peeking craftily out from the shelf behind the half-opened door of the wagon would prove too strong, and her lips would remain silent when her heart was filled with distrust. Rags were not destroyed in those days, but were hoarded up in flour sacks in the cellar from fall until summer, for they were legal tender bank notes of the pedler's realm. But those primitive times have passed, to return no more. The suburban trolley car has done its clearing work, and the wood-pulp process has completed the change. The red wagons stand falling to pieces in forgotten sheds, and the bags have rotted away. The pedler's reign is over.—N. Y. Tribune.

## Instruction for Farmers.

During the past winter three Farmers' Institutes have been held in this county. They have been well attended, and doubtless the farmers have received lasting benefit. Those who come as instructors are men of broad minds, usually men whose practical knowledge of farming has fitted them to effectively impart their knowledge to others. The experiment stations furnish chemists who explain to the farmers what is best to buy in the line of feeds or fertilizers, and how not to be cheated through purchasing spurious articles. All these things help to open the farmers' eyes.

Capital and brains are needed for a successful farmer. All things have undergone great changes, and the agricultural classes must strive to keep abreast of the times. Conductors of Farmers' Institutes are outspoken in praise of the Grange. They find

in going about the State that wherever they hold institutes in communities where there are well-organized Granges, there they find the farmers and farmers' wives, sons and daughters more alert and better versed in all matters pertaining to agriculture. This clearly demonstrates that the ardor of patrons of husbandry is working wonders among the farming classes. The organization is continually growing in strength, and is a power in the land. Nearly all Institute workers are members.

F. E. WHITE.

## Massachusetts State Board.

The expected happened in the case of the attempted changes in the Massachusetts State Board of Agriculture as indicated by the legislative hearing Tuesday. None of the bills offered seemed to be satisfactory, even to their makers, and there was no very enthusiastic talk in their favor. A strong, clear-headed speech, in behalf of the board, by ex-Secretary Sessions made a good impression. Moreover, the proposed reorganization seemed to bring with it a train of difficulties regarding the campaign against the foot and mouth disease and possibly the mixup in the dairy bureau. At the hearing a disposition was shown not to go into these matters at the present time, and it seems unlikely from appearances that the committee on agriculture will favor any radical changes in the makeup of the board.

## Farming for Profit.

Whether you use a fertilizer or not all depends upon how much profit you want to make out of your crops, as it is an established fact that in order to secure the largest possible yield, the crops must be properly fertilized, and whether you use Bradley's Fertilizers or not depends upon whether you want the best and most economical. This is an established fact, for Bradley's has been considered by the more prosperous farmers as the only high-grade fertilizer that absolutely insures the largest possible yield, and thus the largest possible profit. This is not a new product. The name Bradley has been favorably known for a quarter century, and it is used the world over as the standard for comparison. We advise our readers to try Bradley's fertilizers, and thus save the expense of experimenting with unknown brands. Bradley's is for sale most everywhere, and if you will write the Bradley Fertilizer Works, Boston, Mass., you will receive full information about their various brands of fertilizers.

## A Golden Rule of Agriculture:

Be good to your land and your crop will be good. Plenty of

## Potash

In the fertilizer spells quality and quantity in the harvest. Write us and we will send you, free, by next mail, our money winning books.

GERMAN KALI WORKS,  
50 Nassau Street,  
New York.



## A SPAVIN

Big Head Cured. Dr. R. J. Kendall Co., Dear Sirs:—I have a horse with a large head and a few applications of your Spavin Cure cured him. I have a horse with a large head and a few applications of your Spavin Cure cured him. I have a horse with a large head and a few applications of your Spavin Cure cured him.

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